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# Gone in Sixty Milliseconds: Trademark Law and Cognitive Science

Rebecca Tushnet\*

*Trademark dilution is a cause of action for interfering with the uniqueness of a trademark. For example, consumers would probably not think that “Kodak soap” was produced by the makers of Kodak cameras, but its presence in the market would diminish the uniqueness of the original Kodak mark. Trademark owners think dilution is harmful but have had difficulty explaining why. Many courts have therefore been reluctant to enforce dilution laws, even while legislatures have enacted more of them over the past half century. Courts and commentators have now begun to use psychological theories, drawing on associationist models of cognition, to explain how a trademark can be harmed by the existence of similar marks even when consumers can readily distinguish the marks from one another and thus are not confused.*

*Though the cognitive theory of dilution is internally consistent and appeals to the authority of science, it does not rest on sufficient empirical evidence to justify its adoption. Moreover, the harms it identifies do not generally come from commercial competitors but from free speech about trademarked products. As a result, even a limited dilution law should be held unconstitutional under current First Amendment commercial-speech doctrine. In the absence of constitutional invalidation, the cognitive explanation of dilution is likely to change the law for the worse. Rather than working like fingerprint evidence—which ideally produces more evidence about already-defined crimes—psychological explanations of dilution are more like economic theories in antitrust, which changed the definition of actionable restraints of trade. Given the empirical and normative flaws in the cognitive theory, using it to fill dilution’s theoretical vacuum would be a mistake.*

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## 1. Introduction

Law attempts to shape human behavior and therefore can benefit from behavioral science. Psychology and economics can clarify legal concepts like intent and damages, and can predict the consequences of various regulatory regimes, guiding lawmakers as they seek specific goals. But jurists and legislators must be aware of the limits of science. Laboratory results may not reflect real-world experience. And even the most thorough model of behavior cannot tell us what laws are just.

Cognitive science is especially attractive to trademark law because trademark protection is premised on a psychological assumption: exposure to a mark will trigger ideas and emotions in the mind of a consumer. Traditionally, trademark law has measured these responses through circumstantial evidence and consumer-response surveys, but in recent years, research advances have promised to replace intuitions, whether courts' or consumers', with hard facts.

Neuromarketing, the investigation of marketing and branding techniques through observation of brain activity rather than consumer self-reports, is the most recent contender in the search for greater understanding of consumer behavior. Among other things, it illuminates the common wisdom that first impressions are crucial. Researchers can now establish that it only takes fifty milliseconds—a twentieth of a second—for consumers to form opinions about Web sites.<sup>1</sup> Once such an opinion is formed, cognitive biases make it easier for consumers to keep believing than to change their minds.<sup>2</sup>

Neuromarketing also appeals to the idea that there is an objective truth behind intangible brand values.<sup>3</sup> It's well known that people like Pepsi better than Coke until they know what it is they're drinking, at which point

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1. See Gitte Lindgaard et al., *Attention Web Designers: You Have 50 Milliseconds to Make a Good First Impression!*, 25 BEHAV. & INFO. TECH. 115, 115 (2006) (stating the results of a study on visual appeal); cf. MALCOLM GLADWELL, *BLINK: THE POWER OF THINKING WITHOUT THINKING* 12–13 (2005) (citing Nalini Ambady & Robert Rosenthal, *Half a Minute: Predicting Teacher Evaluations from Thin Slices of Nonverbal Behavior and Physical Attractiveness*, 64 J. PERSONALITY & SOC. PSYCHOL. 431, 431 (1993)) (observing that students viewing a few seconds of a teacher with the sound turned off produce basically the same ratings of her effectiveness as students having her for a full semester).

2. See Michael Hopkin, *Web Users Judge Sites in the Blink of an Eye*, NATURE NEWS, Jan. 13, 2006, <http://www.nature.com/news/2006/060109/full/060109-13.html> (“[I]f you can snare people with an attractive design, they are more likely to overlook other minor faults with [a Web] site, and may rate its actual content . . . more favourably. This is because of ‘cognitive bias’ . . . . People enjoy being right, so continuing to use a website that gave a good first impression helps to ‘prove’ to themselves that they made a good initial decision. The phenomenon pervades our society . . . .”).

3. In a 2002 press release, Einory University's neuromarketing research institute claimed it could “identify patterns of brain activity that reveal how a consumer is actually evaluating a product, object or advertisement . . . to help marketers better create products and services and to design more effective marketing campaigns.” Douglas Rushkoff, *Reading the Consumer Mind: The Age of Neuromarketing Has Dawned*, N.Y. PRESS, Feb. 17, 2004 (omission in original), available at [http://www.nypress.com/print.cfm?content\\_id=9637](http://www.nypress.com/print.cfm?content_id=9637).

preferences shift to Coke. Part of what people are drinking is the trademark. Magnetic resonance imaging (MRI) shows that different areas in the brain light up in blinded versus nonblinded taste tests.<sup>4</sup> Positive associations with the brand change the experience of tasting soda, evoking memories along with immediate sensory impressions.<sup>5</sup> Neuroscience thus promises to explain why we buy and to give advertisers information about consumers' brains that consumers themselves don't know. Much of this information is proprietary and inaccessible to academic research, but some is publicly available. Part II of this Article reviews the new theories of trademark value and their relationship to cognitive science.

Part III explains how some people have used cognitive science to explain the doctrine of trademark dilution, which protects against nonconfusing uses of a mark that nonetheless interfere with that mark's distinctiveness. Classic hypothetical examples of dilutive uses include Buick aspirin and Kodak pianos.<sup>6</sup> The first federal dilution law was enacted in 1995;<sup>7</sup> along with its state predecessors, it was hampered by the absence of a convincing justification for an expansive right to suppress nondeceptive uses of a mark.<sup>8</sup> Trademark dilution has been subjected to persistent criticisms: that it is not well defined and that as best as it can be identified, it still isn't harmful.

Cognitive models offer hope of answering these objections by conceiving of dilution as an increase in mental or internal search costs.<sup>9</sup>

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4. See Samuel M. McClure et al., *Neural Correlates of Behavioral Preference for Culturally Familiar Drinks*, 44 NEURON 379, 379 (2004).

5. *Id.* at 385.

6. See *Mead Data Cent., Inc. v. Toyota Motor Sales, U.S.A., Inc.*, 875 F.2d 1026, 1031 (2d Cir. 1989) (listing examples of such "hypothetical anomalies" whose use leads to the "whittling away of an established trademark's selling power" (quoting New York legislative history)).

7. Federal Trademark Dilution Act of 1995 (FTDA), Pub. L. No. 104-98, 109 Stat. 985 (1996) (codified as amended at 15 U.S.C.A. § 1125(c) (West Supp. 2007)).

8. See generally Clarisa Long, *Dilution*, 106 COLUM. L. REV. 1029, 1031-32 (2006) (documenting that after an initial spike of successful dilution claims, courts quickly began imposing substantial barriers to success on dilution claims, culminating in a surprisingly low success rate).

9. See, e.g., Jerre B. Swann, Sr., *Dilution Redefined for the Year 2002*, 92 TRADEMARK REP. 585, 585 (2002) [hereinafter Swann, *Dilution Redefined*] ("[A] growing body of knowledge as to how the mind stores and retrieves brand information—the cognitive psychology of trademarks—has immense potential for explaining dilution theory in a marketplace context."); Jacob Jacoby, *Dilution in Light of Victoria's Secret: The Psychology, Varieties and Measurement of Trademark Dilution* 9-11 (N.Y. Univ. Ctr. for Law & Bus. Working Paper Series, No. CLB-03-020, 2003) [hereinafter Jacoby, *Dilution in Light*], available at <http://w4.stern.nyu.edu/emplibrary/03-020.pdf> (arguing that dilution has always been a psychological construct). These articles are part of a growing literature on trademark law and cognitive psychology. See, e.g., Graeme W. Austin, *Trademarks and the Burdened Imagination*, 69 BROOK. L. REV. 827, 837, 917 (2004) (arguing for greater reliance in trademark cases on cognitive science); Jacob Jacoby, *The Psychological Foundations of Trademark Law: Secondary Meaning, Genericism, Fame, Confusion and Dilution*, 91 TRADEMARK REP. 1013 (2001) [hereinafter Jacoby, *Psychological Foundations*] (considering multiple aspects of trademark through the lens of cognitive psychology); Chi-Ru Jou, *The Perils of a Mental Association Standard of Liability: The Case Against the Subliminal Confusion Cause of Action*, 11 VA. J.L. & TECH. 2, 15-18 (2006) (discussing cognitive heuristics and biases triggered by trademarks); Jeremy N. Sheff,

Consumers allegedly have more difficulty recalling, recognizing, and producing a diluted trademark, and correspondingly are less likely to purchase products or services branded with that mark. If the new cognitive account of dilution were to be accepted by courts, it could produce significant expansions in the scope of trademark rights under both federal and state laws.

The relevant legal concepts predate this new branch of marketing science, however, and do not map onto the research in the convenient ways dilution's proponents have so far asserted. Part IV therefore questions the descriptive accuracy of the cognitive/internal-search-costs model. Major problems include insufficient attention to the contexts in which consumers encounter trademarks in the real world, misinterpretation of research into word frequency and associations, and failure to grapple with the possibility that what the law calls dilution may sometimes improve consumers' memories for a mark. This Part also discusses the concept of tarnishment, for which empirical evidence is limited, and special problems related to consumer surveys seeking to uncover dilution.

Part V, accepting for the sake of argument the cognitive model's descriptive accuracy, deals with its normative implications—especially what it portends for the scope of the dilution right. We should not readily assume that if the law differs from what cognitive science tells us, we should change the law to conform to the “objective” truth of the human brain. The most significant issue is that the supposed neurological correlates of dilution are not congruent with the commercial uses of a mark that dilution law targets. Revamping dilution to map it onto the psychologically based mental-search-costs theory would require us to suppress a lot of what is conventionally understood to be free speech. If we leave dilution's scope as is, however, it is so underinclusive that it fails the Supreme Court's test for regulations of nondeceptive commercial speech. As a result, there is no configuration of dilution law compatible with current First Amendment doctrine.

Part VI concludes that dilution, if it survives constitutional scrutiny, should best be understood as an extremely limited right against free riding, not necessarily corresponding to any readily identifiable interference with marketers' “ownership” of consumer beliefs. Dilution is, ultimately, an under-evidenced concept and one that invites socially wasteful litigation. Thus, if courts sustain dilution laws against First Amendment challenges, they should nonetheless interpret dilution narrowly whenever possible. Given courts' historical reluctance to deny a remedy when they perceive harm to

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*The (Boundedly) Rational Basis of Trademark Liability*, 15 TEX. INTELL. PROP. L.J. 331, 333 (2007) (arguing that cognitive psychology “provide[s] an elegant and robust framework for the positive analysis of all varieties of trademark cases”); Jerre B. Swann, *An Interdisciplinary Approach to Brand Strength*, 96 TRADEMARK REP. 943, 945 (2006) [hereinafter Swann, *Interdisciplinary Approach*] (“Largely, the developments in the ‘sciences’ of trademarks appear to support existing legal formulations. They additionally possess untapped potential in terms of leading to more predictable, accurate and consumer-beneficial outcomes in trademark conflicts, and they may even presage a new era in the scope of brand protection.”).

trademark owners, it is a mistake to endorse a theory that holds that unauthorized use of a mark always risks harm, even if we also have limiting doctrines to prevent relief in defined circumstances where the harm is balanced by some identified social benefit.

The use and misuse of cognitive science to explain trademark doctrines offer insight into the broader question of what empirical scientific research can tell us about legal doctrine. Neuroscience, like behavioral economics, is increasingly being offered as a source of wisdom to guide legal doctrine.<sup>10</sup> As happened with economic analysis in antitrust law, cognitive science is being imported into trademark law in order to convert vague, intuitive concepts into objective rules, generating new law along the way. In antitrust, such scientism led to a rollback of regulation, whereas in trademark it seemingly points to a significant expansion of the law. Here, however, there are significant empirical uncertainties, as well as normative problems with treating consumers' mental images of marks as things that can be owned by other entities. We should therefore hesitate to adopt the cognitive model as legal truth.

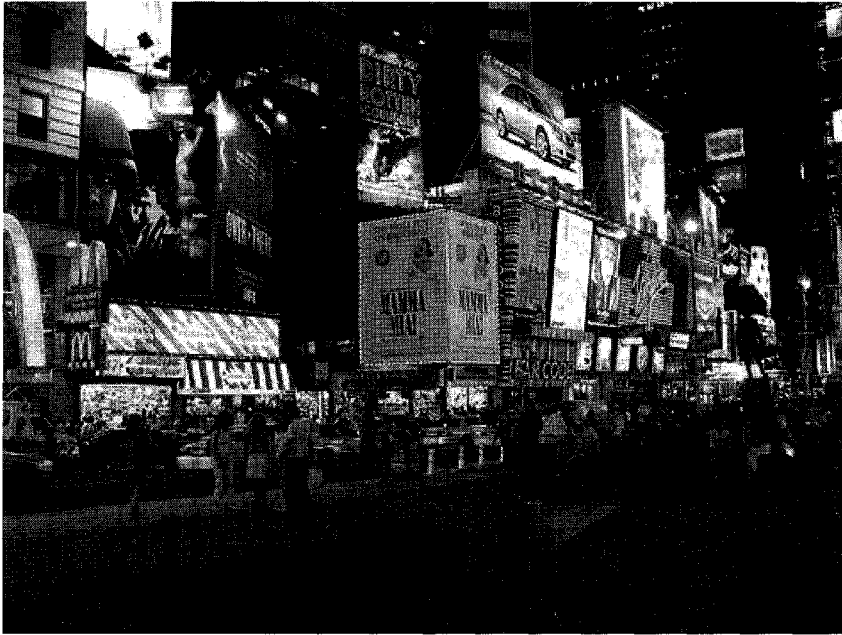
## II. The Buy Button

We live in a time of persistent advertising clutter. Brands proliferate, and advertising proliferates even faster. Consumers are inundated with ads, not just in traditional media but in bathroom stalls, sidewalk decals, even ads covering the paint strips in parking lots.<sup>11</sup> Advertisers shout louder and louder, trying to win attention in a crowded field, whether it is NASCAR sponsorships, television commercials, or Times Square:

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10. See, e.g., Jerry Kang, *Trojan Horses of Race*, 118 HARV. L. REV. 1489, 1570–72 (2005) (arguing for changes in FCC policy based on cognitive studies of racial bias); cf. Stephen J. Morse, *Brain Overclaim Syndrome and Criminal Responsibility: A Diagnostic Note*, 3 OHIO ST. J. CRIM. L. 397, 397 (2006) (criticizing recent efforts to apply neuroscience to theories of criminal responsibility).

11. See, e.g., Laura Petrecca, *Product Placement—You Can't Escape It*, USA TODAY, Oct. 11, 2006, at B1 (“Advertising is intruding on more previously untouched corners of life, including novels, hotel shower curtains, school buses and the bellies of pregnant women. Golfer Fred Couples is often followed around the course by a gaggle of [women] paid to wear the name Bridgestone Golf, his sponsor.”).



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With all that clutter, it's hard to catch a consumer's attention.<sup>13</sup>

Modern marketing science promises to cut through the clutter: "In the not-too-distant future, firms will be able to tell precisely if an advertising campaign or product redesign triggers the brain activity and neurochemical release associated with memory and action."<sup>14</sup> Much of branding is a matter of memory, corresponding to what lawyers call acquired distinctiveness in

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12. Times Square on Flickr, <http://www.flickr.com/photos/stignygaard/50267318> (licensed through Creative Commons, see Creative Commons Attribution 2.0 Generic, <http://creativecommons.org/licenses/by/2.0/deed.en>).

13. See, e.g., KEN SACHARIN, ATTENTION! HOW TO INTERRUPT, YELL, WHISPER, AND TOUCH CONSUMERS 3 (2001) ("[T]he power of marketing communications is eroding from lack of attention."); Gerald Zaltman & Robin Higg Coulter, *Seeing the Voice of the Customer: Metaphor-Based Advertising Research*, J. ADVERTISING RES., July–Aug. 1995, at 35, 36 (explaining that "time famine" makes it "increasingly difficult for advertisers to capture consumers' attention and information-processing time").

14. Melanie Wells, *In Search of the Buy Button*, FORBES, Sept. 1, 2003, at 62, 64 (quoting James Bailey, professor of organizational behavior at George Washington University). See generally GERALD ZALTMAN, HOW CUSTOMERS THINK: ESSENTIAL INSIGHTS INTO THE MIND OF THE MARKET (2003) (using neuroscience as part of marketing analysis). The promise may be overstated; there is a long history in marketing of discoveries that will supposedly guarantee access to consumers' minds. See, e.g., VANCE PACKARD, THE HIDDEN PERSUADERS 3–10 (rev. ed. 1981) (criticizing advertisers' use of strategies derived from psychiatry and social science that bypass consumers' rational choices in favor of altering "the fabric of men's minds" (quoting the president of the Public Relations Society of America)).

trademark, and science offers increasingly sophisticated understandings of memory's relationship to emotion and its effects on purchasing decisions.<sup>15</sup>

Among other things, cognitive research into the way trademarks affect thinking offers hard evidence for the proposition that objective product attributes are not crucial—indeed, not even important—to many consumers. “[P]eople choose Ben & Jerry’s ice cream largely for reasons other than taste.”<sup>16</sup> That’s the example offered by Clinton Kilts, an Emory behavioral scientist, who reassures citizens that companies will respond to “a longing for good corporate citizenship” if it is revealed as a physical artifact in the mind.<sup>17</sup> Apparently, companies would believe in the importance of Ben & Jerry’s principles to consumers if it were neurologically demonstrated, whereas consumers’ expressed preferences are unconvincing.<sup>18</sup> Marketers are not alone in assigning perhaps undue weight to neuroscientific results: one study shows that offering neuroscience as a justification for an obviously flawed explanation of human behavior causes subjects to overlook the flaws.<sup>19</sup>

Still, neurological research has produced results. As noted in Part I, it has identified a physical correlate to the well-known finding that people like Coke better than Pepsi in nonblinded taste tests but reverse their preferences in blind taste tests.<sup>20</sup> They are drinking the good memories associated with

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15. See Bruce F. Hall, *A New Model for Measuring Advertising Effectiveness*, J. ADVERTISING RES., Mar.–Apr. 2002, at 23, 24 (“‘Rational’ cognitive processes are not the primary drivers of purchase behavior through which advertising operates. They are in fact outcomes of a complex process of perception, experience, and memory—a process that is driven primarily by emotions and feelings.”).

16. David Wahlberg, *Advertisers Probe Brains, Raise Fears*, ATLANTA J.—CONST., Feb. 1, 2004, at Q1.

17. *Id.*

18. As one mild skeptic says, “[T]here’s something absurd about the way these imaging studies use brain images to validate subjective experience. It’s as if we’re not sure if we can believe in the enjoyment of ice cream on its own terms.” Daniel Engber, *Thinking in Tongues: What Can We Learn from a Babbling Brain?*, SLATE, Nov. 17, 2006, <http://www.slate.com/id/2153947>. For other examples of the idea that brain scans provide unique access to truth, see Clive Thompson, *There’s a Sucker Born in Every Medial Prefrontal Cortex*, N.Y. TIMES, Oct. 26, 2003, § 6 (Magazine), at 54 (“M.R.I. scanning offers the promise of concrete facts—an unbiased glimpse at a consumer’s mind in action. To an M.R.I. machine, you cannot misrepresent your responses. Your medial prefrontal cortex will start firing when you see something you adore [like *Playboy*], even if you claim not to like it.”) and Deborah L. Vence, *Pick Someone’s Brain: Neurological Research Seeks Brand Effects*, MARKETING NEWS, May 1, 2006, at 11, 12 (“[Neurologist Marco Iacoboni says that people] tell [marketers] what (they think) they are supposed to say, but the brain tells a different story. Brain data shows what people *really* like.”).

19. Deena Skolnick Weisberg et al., *The Seductive Allure of Neuroscience Explanations*, 20 J. COGNITIVE NEUROSCIENCE (forthcoming 2008) (manuscript at 4, on file with author) (finding that irrelevant references to neuroscience made laypeople and students in a neuroscience course believe bad explanations for psychological phenomena and noting that “people often find neuroscience information alluring because it interferes with their abilities to judge the quality of the psychological explanations that contain this information”).

20. See, e.g., Sanjoy Ghose & Oded Lowengart, *Taste Tests: Impacts of Consumer Perceptions and Preferences on Brand Positioning Strategies*, 10 J. TARGETING, MEASUREMENT & ANALYSIS



Coke and its marketing—they are tasting the trademark.<sup>21</sup> Though previous studies have not used MRIs, they confirm that consumers transfer feelings about advertising, packaging, and trademarks to the product itself.<sup>22</sup> Food tastes better to children when it's wrapped in a McDonald's wrapper.<sup>23</sup> A number of years ago, I wrote to Ben & Jerry's asking if it paid extra for the rights to call one flavor Coffee Heath Bar Crunch. The response was that it did. The company had experimented with selling the same recipe, including Heath Bars, under the name Coffee Toffee and discovered that people liked the ice cream better when it was called Coffee Heath Bar Crunch.

Perhaps most disturbingly, other research reveals that people can be induced to change their perceptions, both evaluative (which of three lines on a page is longest?)<sup>24</sup> and affective (was this a good movie?), simply by being exposed to contrary opinions, including advertising.<sup>25</sup> As one researcher

FOR MARKETING 26, 30 (2001) ("In a blind taste test, Diet Pepsi was preferred by 51 per cent of the subjects while Diet Coke was preferred by 44 per cent. In contrast, a branded taste test resulted in Diet Pepsi being preferred by 23 per cent with Diet Coke being preferred by 65 per cent.").

21. See McClure et al., *supra* note 4, at 385, 383–85 (noting the "wealth of cultural meaning" the Coke and Pepsi brands possess).

22. See, e.g., ROBERT B. CIALDINI, *INFLUENCE: SCIENCE AND PRACTICE* 164 (4th ed. 2001) (noting that cars advertised in pictures with beautiful women are judged to be faster and better designed than cars advertised without accompanying beautiful women); GLADWELL, *supra* note 1, at 161–63 (noting that inexpensive brandy performs differently in taste tests depending on how elaborate the bottle is); *id.* at 163 (noting that a 15% increase in yellow color on soda cans affects perception of lemon-lime flavor); *id.* at 163–64 (noting that changing a literal depiction of a human on a food package to a cartoon harms the product's selling power); see also SETH GODIN, *ALL MARKETERS ARE LIARS: THE POWER OF TELLING AUTHENTIC STORIES IN A LOW-TRUST WORLD* 3–5 (2005) (discussing similar research results involving wine glasses); Torben Hansen, *The Effect of Physical Surroundings in Usage Situations on Consumer Perception of Food Quality and on Consumer Emotions*, 15 J. INT'L CONSUMER MARKETING 31, 31 (2002) (observing that elegant physical surroundings have positive effects on perceived quality and pleasure in food tasting).

23. See Thomas N. Robinson et al., *Effects of Fast Food Branding on Young Children's Taste Preferences*, 161 ARCHIVES PEDIATRICS & ADOLESCENT MED. 792, 794–95 (2007) (comparing three- to five-year-old children's evaluations of identical foods, some from McDonald's and some from a grocery store, and finding that children with more exposure to McDonald's and McDonald's advertising had stronger preferences for the versions served in McDonald's packaging).

24. For example, people are more likely to see two objects as similar if they're told (falsely) that others have seen them that way, even when their judgments are private and not subject to social sanctions for nonconformity. MRI scans suggest that the effect is perceptual—it occurs in visual-processing areas of the brain—and not simply a matter of subjects altering their reports of what they see. See Gregory S. Berns et al., *Neurobiological Correlates of Social Conformity and Independence During Mental Rotation*, 58 BIOLOGICAL PSYCHIATRY 245, 251 (2005). Ads appearing to represent others' opinions can thus change our own. See Wells, *supra* note 14, at 65–66; see also Gia B. Lee, *Persuasion, Transparency, and Government Speech*, 56 HASTINGS L.J. 983, 1010–11 (2005) (discussing research on how perceived popularity of a belief can change individuals' perceptions of its truth); Matthew J. Salganik et al., *Experimental Study of Inequality and Unpredictability in an Artificial Cultural Market*, 311 SCIENCE 854, 854–55 (2006) (same for music ratings).

25. See ZALTMAN, *supra* note 14, at 183, 182–83 (citing studies demonstrating advertising's ability to "infiltrate memory" and even to create memories of events that never occurred); see also *id.* at 12–13, 166–67, 180–81 (describing various successful experiments in manipulating memories about products or services); Kathryn A. Braun & Elizabeth F. Loftus, *Advertising's Misinformation Effect*, 12 APPLIED COGNITIVE PSYCHOL. 569, 586 (1998) ("[M]isinformation received following a

comments, “From an advertising and marketing perspective, this is a major breakthrough: the work showed that exposure to advertising can transform ‘objective’ sensory information, such as taste, in a consumer’s memory, prior to the judgment process, *and after the consumer had tasted the product.*”<sup>26</sup>

Simple repetition of advertising improves its credibility.<sup>27</sup> People generally play along with advertising, making efforts to confirm advertising-generated expectations and to avoid feeling like a dupe who believed an untrue claim.<sup>28</sup> Although not all advertising works, advertising in general is quite successful at creating positive feelings associated with consumption. We are only human in our tendencies to transfer positive emotions from funny or appealing ads to the products and services they tout.

These phenomena can be linked to neurological changes (which, as noted above, makes them seem more real):

Many seemingly rational decisions are reflexive snap judgments, shaped by networks of neurons acting in concert. These orchestras of cells are surprisingly malleable, readily responding to the influence of experience.

Moreover, researchers suspect that the inescapable influence of marketing does more than change minds. It may alter the brain.

direct experience with a product altered the recollections respondents made about that product.”); Kathryn A. Braun et al., *Make My Memory: How Advertising Can Change Our Memories of the Past*, 19 PSYCHOL. & MARKETING 1, 17, 17–18 (2002) (discussing research finding that “featuring impossible events in autobiographical advertising can cause people to believe they had experienced the events”); Kathryn A. Braun, *Postexperience Advertising Effects on Consumer Memory*, 25 J. CONSUMER RES. 319, 332 (1999) (finding that advertising can induce consumers to change taste judgments from negative to positive); Kathryn A. Braun-LaTour et al., *How and When Advertising Can Influence Memory for Consumer Experience*, J. ADVERTISING, Winter 2004, at 7, 19 (observing that ads changed memories to be consistent with the advertised claims, inducing people to believe they had personally met Bugs Bunny at a Disney park); Hall, *supra* note 15, at 25 (“[P]ost-experience exposure [to ads] is also subject to ‘interpretation.’ The advertisement not only influences the consumer to feel that the sensory or social experience was a good one, but it also provides reasons to believe that it was. As with pre-experience advertising, if the advertisement fails to provide or imply a reason-to-believe, the interpreter will supply one.”).

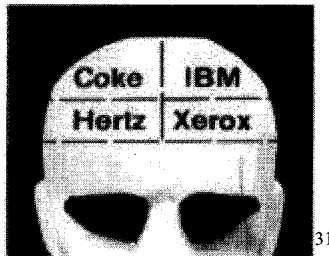
26. Hall, *supra* note 15, at 26.

27. E.g., Scott A. Hawkins & Stephen J. Hoch, *Low-Involvement Learning: Memory Without Evaluation*, 19 J. CONSUMER RES. 212, 223 (1992); Scott A. Hawkins et al., *Low-Involvement Learning: Repetition and Coherence in Familiarity and Belief*, 11 J. CONSUMER PSYCHOL. 1, 2 (2001); cf. Gita Venkataramani Johar et al., *MAPping the Frontiers: Theoretical Advances in Consumer Research on Memory, Affect, and Persuasion*, 33 J. CONSUMER RES. 139, 143 (2006) (“More exposure to a product results in an increased preference for that product.” (citation omitted)).

28. See John Deighton, *The Interaction of Advertising and Evidence*, 11 J. CONSUMER RES. 763, 763 (1984) (describing a two-step model of consumer behavior in which an individual entertains a tentative hypothesis about a product and then attempts to confirm it); cf. Stephen J. Hoch & John Deighton, *Managing What Consumers Learn from Experience*, J. MARKETING, Apr. 1989, at 1, 1 (“Learning from self-generated experience with a product or service is not a simple process of discovering objective truth. It is, to a greater or lesser extent, open to influence[,] and the consumer’s confidence in the objectivity of such learning can be illusory.”).

Just as practicing the piano or learning to read can physically alter areas of the cerebral cortex, the intense, repetitive stimulation of marketing might shape susceptible brain circuits involved in decision-making.<sup>29</sup>

Marketers therefore routinely define successful brands in terms of property—not in the trademarks, as lawyers might, but in the minds of consumers. As the picture below shows, marketers maintain that “[t]he strongest brands in the world own a place in the consumer’s mind.”<sup>30</sup>



Yet the mind is not infinitely capacious. In the diagram above, for example, Pepsi and Apple might be able to occupy territory only by displacing other brands. Perhaps worse, someone might appropriate *Xerox* for an unrelated product to get instant access to a spot already occupied by Xerox in a consumer’s mental landscape. This raises the possibility of a tragedy of the mental commons, in which a consumer’s mind is overpopulated with meaning and her understanding of a brand descends into incoherence. Propertization of that meaning, by hypothesis, ought to lead to wise management, fighting the clutter of ads that barrages us from every angle.

29. Robert Lee Hotz, *Mapping the Mind: Searching for the Why of Buy*, L.A. TIMES, Feb. 27, 2005, at A26.

30. SCOTT M. DAVIS, BRAND ASSET MANAGEMENT: DRIVING PROFITABLE GROWTH THROUGH YOUR BRANDS 3 (2000); see also DOUGLAS B. HOLT, HOW BRANDS BECOME ICONS: THE PRINCIPLES OF CULTURAL BRANDING 15 (2004) (“Since the 1970s, this provocative image—of brands contesting for scarce mental real estate in consumers’ minds—has been the most influential idea in branding.”); AL RIES & JACK TROUT, POSITIONING: THE BATTLE FOR YOUR MIND 58 (20th anniversary ed. 2001) (“The power of the organization is derived from . . . [t]he position that the product owns in the prospect’s mind.”); ZALTMAN, *supra* note 14, at 71 (“The unconscious mind represents a significant frontier where marketers may establish secure beachheads of competitive advantage. Certainly no firm can claim to understand consumers without colonizing this land of opportunity.”). Though Zaltman disavows mind control, he does suggest that neuromarketing and related techniques can make marketing more effective across the board, reducing product-failure rates from their current level of 80%. See *id.* at 127, 289. This teleological approach, suggesting that properly managed consumers will find a way to buy more of everything, posits an end state of marketing nirvana even while it concedes some agency to consumers.

31. RIES & TROUT, *supra* note 30, at 29.

Because marketing is never-ending, there are always interlopers fighting for neural territory. If a defendant's activities interfere with existing marketing-generated wiring, there is reason to claim trademark dilution or possibly even infringement. Or so trademark owners would like us to believe.

### III. The Appeal of the Internal-Search-Costs Model

Everyone agrees that trademark infringement—use of a mark in a way likely to confuse consumers about who is responsible for the quality of a product or service—is harmful. The currently dominant explanation uses the language of economics: confusion about source or sponsorship harms producers by decreasing their incentives to invest in consistent quality and harms consumers by deceiving them into buying unwanted and inferior products. A successful trademark regime decreases consumer search costs because the trademark serves as shorthand for the qualities the consumer seeks and thus increases efficiency.<sup>32</sup>

In 1927, amid a boom in national advertising, Frank Schechter supplemented traditional confusion with a new theory of harm to a valuable mark.<sup>33</sup> Dilution, he argued, was interference with the uniqueness of a mark, which was the key to its selling power.<sup>34</sup> Even without confusion between Buick cars and Buick aspirin, the existence of the latter would make the former less able to sell cars. Many states accepted this theory in subsequent decades and enacted laws providing for relief against dilution.<sup>35</sup> In 1995, Congress followed with the Federal Trademark Dilution Act (FTDA), which created a federal right against dilution of a famous mark.<sup>36</sup> The laws did not

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32. As Mark McKenna persuasively argues, this consumer-protection justification, currently couched in terms of economic efficiency, was not the traditional understanding of the wrong of trademark infringement, though infringement law has successfully been retrofitted and reorganized around it. See Mark P. McKenna, *The Normative Foundations of Trademark Law*, 82 NOTRE DAME L. REV. 1839 (2007). As McKenna explains, at the beginning of the twentieth century, trademarks generally protected only against unfair *competition*—use of a confusingly similar mark on the same products as those produced by the trademark owner, leading to diverted sales. *Id.* at 1900. Industrial manufacturing and marketing led to situations in which use of a confusingly similar mark on different products could potentially harm the trademark owner, either by risking its reputation if the other products were shoddy or by precluding it from entering a new field that would otherwise make business sense, as when a pancake-mix manufacturer wanted to use its mark on pancake syrup. *Id.* at 1901. Courts eventually began to treat this type of consumer confusion as trademark infringement even in the absence of direct competition. *Id.* at 1901–02.

33. See Frank I. Schechter, *The Rational Basis of Trademark Protection*, 40 HARV. L. REV. 813 (1927).

34. See *id.* at 831–33.

35. See Gregg Duffey, *Trademark Dilution Under the Federal Trademark Dilution Act of 1995: You've Come a Long Way Baby—Too Far, Maybe?*, 39 S. TEX. L. REV. 133, 140–41 (1997) (discussing state approaches to trademark dilution).

36. Federal Trademark Dilution Act of 1995 (FTDA), Pub. L. No. 104-98, 109 Stat. 985 (1996) (codified as amended at 15 U.S.C. § 1125(c) (West Supp. 2007)).

define dilution in any helpful fashion,<sup>37</sup> and the mechanisms by which harm could take place in the absence of confusion were difficult to articulate.

Courts have struggled mightily to figure out what trademark dilution is and what harm it does.<sup>38</sup> Clarisa Long has documented substantial swings in the success rate for dilution cases, culminating for now in apparent disenchantment with dilution as a cause of action in most circumstances.<sup>39</sup> Recently enacted amendments to the FTDA have eliminated some of the specific doctrines courts have used to cabin dilution,<sup>40</sup> but many uncertainties of definition and proof remain.

Enter the cognitive-processing model. It offers an attractive definition of dilution, one that creates a pleasing symmetry between dilution and the standard—now “external”—search-cost model of infringement. Dilution imposes mental—“internal”—search costs on consumers, which is why dilution is harmful. Judge Posner has ably set forth the fundamentals of the cognitive model, and Jacob Jacoby, a prominent (if not always successful)<sup>41</sup>

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37. State laws generally spoke of “injury to business reputation” and “dilution of the distinctive quality of a mark” but did not define those concepts further, contributing to judicial resistance to dilution. See William G. Barber, *The Trademark Dilution Revision Act of 2005: Breathing Life Back into the Federal Dilution Statute*, 16 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 1113, 1114, 1113–15 (2006). The FTDA originally defined dilution as “the lessening of the capacity of a famous mark to identify and distinguish goods or services,” though this wording has now been changed. 15 U.S.C. § 1127 (2000), amended by Trademark Dilution Revision Act of 2006, Pub. L. No. 109-312, § 3(e), 120 Stat. 1730, 1733 (striking out the definition of “dilution”).

38. See Christine Haight Farley, *Why We Are Confused About the Trademark Dilution Law*, 16 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 1175 (2006) (collecting examples).

39. Long, *supra* note 8; see also Swann, *Dilution Redefined*, *supra* note 9, at 597–98 (discussing judicial distrust of dilution). Long evaluates only federal dilution claims, not state-law dilution claims litigated in federal court, see Long, *supra* note 8, at 1038, which may lead her to understate the utility of dilution claims to plaintiffs. See Robert C. Bird, *The Impact of the Moseley Decision on Trademark Dilution Law 8* (May 17, 2006) (unpublished manuscript, on file with author), available at <http://ssrn.com/abstract=903003> (discussing several successful state-law-only dilution claims).

40. For an overview, see Barton Beebe, *A Defense of the New Federal Trademark Antidilution Law*, 16 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 1143 (2006). The amendments specify that plaintiffs need only show likely dilution, not actual dilution, overturning *Moseley v. V Secret Catalogue, Inc.*, 537 U.S. 418 (2003), and that a famous trademark is federally protected against dilution whether it is inherently distinctive or has acquired distinctiveness, overturning Second Circuit precedent, see, e.g., *TCPIP Holding Co. v. Haar Commc’ns Inc.*, 244 F.3d 88, 96 (2d Cir. 2001). See Trademark Dilution Revision Act of 2006 § 2 (codified at 15 U.S.C.A. § 1125(c)(1) (West Supp. 2007)). The amendments also provide that only wide recognition among the general consuming public makes a mark “famous” such that it qualifies for federal dilution protection, overturning cases that recognized “niche” fame, see *id.* § 1125(c)(2)(A); reorganize the available defenses for activities, such as comparative advertising and parody, see *id.* § 1125(c)(3); and set out factors for courts to consider in assessing dilution by blurring, see *id.* § 1125(c)(2)(B). Though these changes will provide grist for years of the litigation mill, they do not change the ways in which cognitive theories can be applied to prove or infer the existence of dilution.

41. See, e.g., *Nat’l Football League Props., Inc. v. Prostyle, Inc.*, 57 F. Supp. 2d 665, 668–73 (E.D. Wis. 1999) (rejecting Jacoby’s dilution survey and finding that Jacoby’s general explanations of the underlying cognitive theory were inadmissible); *Barnes Group Inc. v. Connell Ltd. P’ship*, 793 F. Supp. 1277, 1293–94 (D. Del. 1992) (rejecting Jacoby’s theories of dilution based on cognitive psychology as inapplicable to the present case).

trademark expert, has seized on Posner's explanations as confirmation of his framework for measuring dilution experimentally.

### A. *Blurring*

In *Ty Inc. v. Perryman*,<sup>42</sup> a case about a Web site that sold Beanie Babies and other stuffed bean-bag animals, Judge Posner reiterated the standard search-costs justification for protecting trademarks against infringement.<sup>43</sup> He then contrasted infringement to dilution, which he saw as dealing with internal search costs—difficulties not in figuring out whether two products or services are from the same source, but in retrieving the mark from memory in the first place.<sup>44</sup>

In the cognitive model,<sup>45</sup> blurring takes place when a single term activates multiple, nonconfusing associations in a consumer's mind. Meanings or concepts, including sounds, images, and other sensory impressions, are linked by mental networks. Concepts are activated through links in the network, triggering related concepts.<sup>46</sup> Activation happens very fast, and if it does not continue, an unreinforced word or concept can die away. For example, because we process sounds in sequence, neighborhoods of words starting with an initial *he* sound will be activated when we hear *he*.<sup>47</sup> When we hear the rest of the word *hello*, *help* will die away and *hello*, with its attendant meanings, will be activated.<sup>48</sup>

Blurring involves relatively extended activation of two different meanings for a mark until the consumer sorts out the proper referent. The basic theory is that an unrelated, nonconfusing mark similar to a famous mark adds new associations to a preexisting network, which slows processing time, especially if the junior mark has a very different meaning than the

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42. 306 F.3d 509 (7th Cir. 2002).

43. *Id.* at 510.

44. *Id.* at 510–12.

45. There are other theories of language and cognition. The new trademark-dilution theory is based on an associationist model of cognition, which is distinct from structuralist, universal grammar models. Because the latter have not yet produced theories of trademarks, and it is not clear that they would have much to say about trademark meanings specifically, I focus only on the associationist model.

46. See, e.g., JOHN R. ANDERSON, COGNITIVE PSYCHOLOGY AND ITS IMPLICATIONS 183–85 (4th ed. 1995) (explaining the concept of spreading activation); Jacoby, *Psychological Foundations*, *supra* note 9, at 1019–20 (same); Swann, *Interdisciplinary Approach*, *supra* note 9, at 946–47, 950 (linking spreading activation to brand association).

47. See Christine A. Sevald & Gary S. Dell, *The Sequential Cuing Effect in Speech Production*, 53 COGNITION 91, 110 (1994) (discussing sequential cuing).

48. See *id.* (modeling sequential cuing).

senior mark.<sup>49</sup> Like several pebbles thrown into a pond at once, activation of different meanings causes interference with each one.<sup>50</sup>

Posner gave the example of a high-end restaurant called Tiffany's, which would interfere with a consumer's immediate recognition of the jewelry store Tiffany's.<sup>51</sup> "Consumers will have to think harder—incur as it were a higher imagination cost—to recognize the name as the name of the store."<sup>52</sup> They will have to stop and ask themselves, "Which Tiffany's?"<sup>53</sup> A number of legal scholars have agreed with Judge Posner and explicitly identified the increased mental search costs for consumers as the harm of dilution.<sup>54</sup> Famous marks "are enormously valuable but fragile assets, susceptible to irreversible injury from promiscuous use."<sup>55</sup>

49. See Maureen Morrin & Jacob Jacoby, *Trademark Dilution: Empirical Measures for an Elusive Concept*, 19 J. PUB. POL'Y & MARKETING 265, 267 (2000).

50. See Swann, *Dilution Redefined*, *supra* note 9, at 613 (arguing that if two brands are associated, "discrete and (usually) consistent propositions linked to each symbol become part of a larger, divergent array, with adverse memory consequences for both the brand concepts and each of their separate links").

51. *Ty Inc. v. Perryman*, 306 F.3d 509, 511 (7th Cir. 2002). It is worth noting that there exist multiple establishments using the name Tiffany's, but Judge Posner still felt that Tiffany's was famous and distinctive enough to serve as an example. The failure of the prototype might be thought to cast doubt on dilution theory generally. See David S. Welkowitz, *Reexamining Trademark Dilution*, 44 VAND. L. REV. 531, 539 (1991).

52. *Perryman*, 306 F.3d at 511; see also Richard A. Posner, *When Is Parody Fair Use?*, 21 J. LEGAL STUD. 67, 75 (1992) ("A trademark seeks to economize on information costs by providing a compact, memorable, and unambiguous identifier of a product or service. The economy is less when, because the trademark has other associations, a person seeing it must think for a moment before recognizing it as the mark of the product or service.").

53. See Swann, *Dilution Redefined*, *supra* note 9, at 612 ("Upon hearing the word in an advertisement, the consumer could not thus register an immediate, information-laden impression favorable to the [famous trademark owner], but would have to await context to ascertain whether a more mundane commodity was being promoted. As a 'marketing tool,' the [famous] brand would have less utility."). Swann cites general interviews with psychologists and cognitive-psychology texts that refer to "'response competition,' potentially resulting in 'unlearning,' or forgetting, [which] can occur when the same cue brings to consciousness two disparate propositions or concepts. Similarly, 'the more propositions related to a concept the less activation will be received by each when the concept is activated.'" *Id.* at 612–13 (footnote omitted) (quoting R. REED HUNT & HENRY C. ELLIS, *FUNDAMENTALS OF COGNITIVE PSYCHOLOGY* 176–77, 195 (6th ed. 1999)).

54. See, e.g., Stacey L. Dogan & Mark A. Lemley, *Trademarks and Consumer Search Costs on the Internet*, 41 HOUS. L. REV. 777, 790 (2004) [hereinafter Dogan & Lemley, *Consumer Search Costs*] (arguing that dilution law protects against increased search costs); Stacey L. Dogan & Mark A. Lemley, *What the Right of Publicity Can Learn from Trademark Law*, 58 STAN. L. REV. 1161, 1197 (2006) [hereinafter Dogan & Lemley, *Right of Publicity*] ("[L]ike traditional trademark law, dilution properly understood is targeted at reducing consumer search costs."); Lee Goldman, *Proving Dilution*, 58 U. MIAMI L. REV. 569, 576, 575–76 (2004) (asserting that the use of well-known trademarks by other users creates "clutter" and imposes additional search costs on consumers); Daniel Klerman, *Trademark Dilution, Search Costs, and Naked Licensing*, 74 FORDHAM L. REV. 1759 (2006) (analyzing dilution and the naked-licensing doctrine from a search-costs perspective); J. Thomas McCarthy, *Proving a Trademark Has Been Diluted: Theories or Facts?*, 41 HOUS. L. REV. 713, 727–28 (2004) ("[I]f a once-unique designation loses its uniqueness . . . it [is] harder for consumers to link that designation with a single source—the hallmark of a strong trademark. Under this theory, dilution increases the consumer's search costs by diffusing the identification power of that designation."); Maureen A. O'Rourke, *Defining the*

In 2000, Maureen Morrin and Jacob Jacoby conducted an experiment that can be used to bolster the internal-search-costs model.<sup>56</sup> The study had participants view diluting ads for Dogiva dog biscuits, Heineken popcorn, and Hyatt legal services.<sup>57</sup> The ads were “tombstone” ads—print only and highly informational.<sup>58</sup> The Heineken and Hyatt ads contained prominent disclaimers of affiliation with Heineken beer and Hyatt hotels, respectively.<sup>59</sup> Computers measured how long it took for participants to identify the senior marks after exposure to the junior marks.<sup>60</sup> Morrin and Jacoby found that exposure to dilutive ads slowed participants’ accuracy and response time in associating some brands with product categories and attributes, such as linking Godiva to chocolate and rich taste.<sup>61</sup> Heineken beer was similarly affected by ads for Heineken popcorn, though Hyatt hotels were not affected by ads for Hyatt legal services.<sup>62</sup>

Exposure to dilutive ads led to an average response time of 770 milliseconds before respondents recognized the senior brand as fitting in its category, versus 675 milliseconds after exposure to an ad for the senior brand (reinforcement) and 748 milliseconds after exposure to unrelated ads (control).<sup>63</sup> (The average was driven down because ads for Hyatt legal services *improved* subjects’ recognition time for Hyatt hotels just as much as ads for Hyatt hotels did.)<sup>64</sup> Other researchers conducted paper-and-pencil versions of the experiment using aided recall, in which respondents were required to retrieve distinctive aspects of a brand when presented with the

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*Limits of Free-Riding in Cyberspace: Trademark Liability for Metatagging*, 33 GONZ. L. REV. 277, 307 n.114 (1997–1998) (“Dilution by blurring is concerned with preventing the erosion of the distinctiveness of the mark because of its use on non-related products. The ‘noise’ that this creates around the mark may increase consumer search costs.”); Michael Pulos, Comment, *A Semiotic Solution to the Properization Problem of Trademark*, 53 UCLA L. REV. 833, 854–55, 859–61 (2006) (adopting the search-cost model to analyze dilution). Marketing researchers have picked up on the argument as well. See Robert A. Peterson et al., *Trademark Dilution and the Practice of Marketing*, 27 J. ACAD. MARKETING SCI. 255, 260–61 (1999) (proposing the cognitive-difficulty model of dilution as a way to understand the legal concept).

55. *The United States Trademark Association Trademark Review Commission Report and Recommendations to USTA President and Board of Directors*, 77 TRADEMARK REP. 375, 455 (1987); accord Swann, *Dilution Redefined*, *supra* note 9, at 623.

56. See Morrin & Jacoby, *supra* note 49.

57. *Id.* at 268.

58. *Id.*

59. *Id.*

60. *Id.* at 269.

61. *Id.* at 269–70.

62. *Id.* at 269 tbl.1. Survey participants exposed to Heineken popcorn agreed that Heineken was a beer 82.8% of the time, compared to 92.1% who had not seen any Heineken ads and 90.0% who had been exposed to a Heineken beer ad. *Id.*

63. *Id.*

64. See *id.* at 269 & tbl.1.



brand name and to retrieve the brand name when presented with the brand's distinctive aspects.<sup>65</sup> The results also showed measurable dilutive effects.<sup>66</sup>

Dilution proponents maintain that delayed responses, like decreased accuracy in linking brands to categories and products, are likely to affect purchasing decisions, given that advertisers often only have a few seconds—or even milliseconds—to catch consumers' attention. If a dilutive use defamiliarizes consumers with a mark, their positive emotional associations based on familiarity may be lost, giving them less reason to choose the underlying product.<sup>67</sup> In the lab, dilution-generated delayed response times have been correlated with later decreases in the likelihood that subjects will choose a diluted brand from among competing alternatives.<sup>68</sup>

### B. Tarnishment

In Posner's model, dilution by tarnishment also involves interference with cognitive processing, but of a different kind. Judge Posner posited a strip joint named Tiffany's and assumed that reasonable consumers do not think it has any connection with the jewelry store.<sup>69</sup> Nevertheless, "because of the inveterate tendency of the human mind to proceed by association, every time [people who know about the strip joint] think of the word 'Tiffany' their image of the fancy jewelry store will be tarnished by the association of the word with the strip joint."<sup>70</sup> This "inveterate tendency" can be equated to the psychological concept of activation discussed above.<sup>71</sup> A suggestive mark like Hooters, for example, activates associations to restaurants, breasts, the color orange, owls, sexual harassment, and a variety of other concepts.

Tarnishment is a more intuitively obvious concept than blurring, as evidenced by the considerable debate in the literature over what blurring is, with substantially less attention paid to tarnishment. As discussed in Part II, emotion drives cognition, meaning that negative associations may do real, even measurable harm, even though it is not rational to think less of Tiffany's-the-jeweler because of the existence of the strip club Tiffany's. No matter what people consciously believe, Tiffany's-the-strip-joint will become

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65. Chris Pullig et al., *Brand Dilution: When Do New Brands Hurt Existing Brands?*, J. MARKETING, Apr. 2006, at 52, 61.

66. See *id.* at 52, 61–62.

67. See 43(B)log, [http://tushnet.blogspot.com/2007/10/santa-clara-dilution-conference\\_07.html](http://tushnet.blogspot.com/2007/10/santa-clara-dilution-conference_07.html) (Oct. 7, 2007, 08:13 EST) (summarizing Laura Bradford's work on trademarks, emotion, and familiarity); cf. *supra* notes 21, 27 and accompanying text (discussing the selling power of familiarity).

68. See Pullig et al., *supra* note 65, at 52, 61–62.

69. *Ty Inc. v. Perryman*, 306 F.3d 509, 511 (7th Cir. 2002).

70. *Id.*; see also Robert G. Bone, *Hunting Goodwill: A History of the Concept of Goodwill in Trademark Law*, 86 B.U. L. REV. 547, 605 (2006) (endorsing a similar theory of tarnishment as interference with information transmission).

71. See *supra* notes 45–48 and accompanying text.

a branch on the tree of associations connected to Tiffany's-the-jeweler, and it will bear poisoned fruit.

Though there is room to characterize tarnishment as a subset of blurring, because they both apparently involve a proliferation of associations, tarnishment involves persistent associations with the senior mark. With a prediluted mark like Apple or American, both trademark-related and non-trademark concepts may be activated when we see the word, depending on how primed we are by context. As we recognize the reference to the trademark, unrelated concepts will not be further activated and will die away. This is also what should eventually happen with dilution by blurring—because there is no confusion, concepts of Tiffany's-the-jewelry-store activated when we see *Tiffany's* will fade as the mind recognizes that the subject of a particular reference is Tiffany's-the-strip-joint.

By contrast, dilution by tarnishment would mean that the idea of Tiffany's-the-strip-joint remains at least slightly activated after a reference to Tiffany's-the-jewelry-store, decreasing the overall positive value associated with Tiffany's-the-jewelry-store.<sup>72</sup> Or, to take a better example of tarnishment, consider an ad campaign accusing jewelry stores, including Tiffany's, of complicity in selling conflict diamonds, complete with images of blood and slaughter. Now, reference to Tiffany's-the-jewelry-store activates both positive concepts of beauty and wealth and negative concepts of violence and exploitation.<sup>73</sup> Under current law, the ad campaign has a better justification than the strip joint and will almost certainly avoid any liability,

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72. Alex Simonson suggests that the very existence of a similarly branded product in a divergent category will have tarnishing effects, even without poor quality: “[S]tudies indicate that as the perceived fit between the product categories (of the new brand and the original brand) decreases, the evaluation of the original product decreases, even if the brands are unrelated as to source . . . .” Alexander F. Simonson, *How and When Do Trademarks Dilute: A Behavioral Framework to Judge “Likelihood” of Dilution*, 83 TRADEMARK REP. 149, 167 (1993) (footnotes omitted). For specific discussion of this point, see *infra* subpart IV(D).

73. Related evidence comes from studies of racial stereotypes. It is well established that many people have difficulty associating words that describe people from a group (blacks, women, gays) with words that are inconsistent with stereotypes associated with that group; they are hundreds of milliseconds slower and make more mistakes when asked to do stereotype-inconsistent matching. But those reaction times can be altered—still unconsciously—by exposure to inconsistent information, such as images of revered African-Americans and reviled whites, in order to counteract racial bias. See Nilanjana Dasgupta & Anthony G. Greenwald, *On the Malleability of Automatic Attitudes: Combating Automatic Prejudice with Images of Admired and Disliked Individuals*, 81 J. PERSONALITY & SOC. PSYCHOL. 800, 800 (2001) (reporting that exposure to counterstereotypical images reduced the delay in implicit association with regard to stereotype-inconsistent matching); see also Irene V. Blair et al., *Imagining Stereotypes Away: The Moderation of Implicit Stereotypes Through Mental Imagery*, 81 J. PERSONALITY & SOC. PSYCHOL. 828, 838 (2001) (applying a similar methodology to words associated with stereotypes about men and women, and reporting similar conclusions). Even with entrenched biases like those associated with race, it is possible to change reaction times by exposing people to negative images of whites and positive images of African-Americans—at least for a time. See Dasgupta & Greenwald, *supra*, at 807 (noting that the effect persisted for at least twenty-four hours after the initial experiment). Likewise, showing Tiffany's in distasteful situations might have similar effects, overwhelming past positive associations.

but it will tarnish the Tiffany's mark. Moreover, if the campaign mentions Tiffany's in order to get consumers' attention even though Tiffany's is not a unique offender, it can do perhaps unjustified harm to Tiffany's relative competitive position.<sup>74</sup>

Though it was decided on confusion grounds, *Anheuser-Busch, Inc. v. Balducci Publications*,<sup>75</sup> a case against a humor magazine's parody ad for Michelob Oily, is one of Jacoby's prime examples of tarnishment.<sup>76</sup> Participants in his study were shown either an ad for Michelob Dry or the mock ad for Michelob Oily.<sup>77</sup> Thirty-seven percent of those shown the Michelob Oily ad "associat[ed] a negative meaning with Michelob or Anheuser Busch," while no one who saw a Michelob Dry ad did so.<sup>78</sup> Such negative meanings attach to the senior mark directly, rather than being mediated through a second, unrelated product. As Jacoby's example indicates, the negative-association rationale for the tarnishment doctrine readily applies to criticism or parody of trademark owners.<sup>79</sup>

### C. Free Riding

Finally, Posner offers a third possible meaning of dilution, which is simply free riding. The example is a Tiffany's restaurant in Kuala Lumpur, which grabs some of the luster of Tiffany's-the-jeweler because of the same tendency to make associations that explains tarnishment and blurring.<sup>80</sup> People in Kuala Lumpur know about the jewelry store but would never patronize it, so no jewelry-store customers have their mental models of Tiffany's distorted in any way.<sup>81</sup> But noncustomers now have multiple associations with Tiffany's, and their recognition of the famous mark is impaired.<sup>82</sup> Posner is dubious about this rationale,<sup>83</sup> and the new federal

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74. That arguably happened to Nike when labor activists targeted it even though its labor practices were standard in the athletic-apparel industry; other shoe producers benefited greatly from anti-Nike, anti-child-labor sentiment even while behaving much like Nike. See Jeff Manning, *Rival Asks Nike to Join Fight Against Sweatshops*, OREGONIAN, Sept. 27, 1996, at A1 (questioning Reebok's motives for publicly inviting Nike to join a factory-monitoring system); see also *UNC Students Gather to Protest Ties to Nike*, CHI. SUN-TIMES, Nov. 9, 1997, at 28 (quoting some students who thought the protest unfairly targeted Nike since its competitors engaged in the same behavior).

75. 28 F.3d 769 (8th Cir. 1994).

76. Jacoby, *Psychological Foundations*, *supra* note 9, at 1059.

77. *Id.* at 1060.

78. *Id.* Twenty-two percent said the Michelob Oily ad made them less likely to buy Michelob, and twenty percent said they were less likely to drink it, compared to seven and five percent, respectively, of those who saw the Michelob Dry ad. *Id.* at 1061.

79. See *Deere & Co. v. MTD Prods., Inc.*, 41 F.3d 39, 45 (2d Cir. 1994) (applying dilution to bar a competitor's parody of John Deere's logo in a comparative ad).

80. See *Ty Inc. v. Perryman*, 306 F.3d 509, 512 (7th Cir. 2002).

81. See *id.*

82. *Id.* at 511.

dilution law seems to have taken it off the table for federal claims, though it may still be viable under state law.<sup>84</sup> This definition focuses on the mental processes of the junior user's customers, not the senior user's, but is otherwise quite similar to the definition of blurring.

#### D. Summary

The cognitive explanation of dilution has been presented to courts and Congress as a solid empirical and theoretical justification for dilution law.<sup>85</sup> Jacoby now explicitly connects his cognitive model to Posner's internal-search-costs formulation.<sup>86</sup> The link from psychology to economics to law is complete. Dilution means "slowing or interrupting the ability to recall either a brand or its associations."<sup>87</sup>

To dilution's proponents, earlier concepts of diminishing the selling power of a mark have simply been formalized and translated into the language of law and economics. Like any translation, however, the new dilution story creates new opportunities. By providing "numerically quantifiable

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83. See *id.* at 512 (pointing out that because one prestigious name is as good as any other when used in an unrelated market, a trademark owner could not expect to earn any significant fees from licensing such use).

84. The amended federal law specifically covers dilution by blurring and dilution by tarnishment and would not include Posner's third category unless it were seen as a type of blurring. See Beebe, *supra* note 40, at 1164–65. Free riding might, however, still be covered by state dilution laws. Even though Posner was not sure whether such a cause of action was justified, at least one court has read *Perryman* to endorse all three types of dilution. See *Best Vacuum, Inc. v. Ian Design, Inc.*, No. 04 C 2249, 2005 WL 1185817, at \*13 (N.D. Ill. Jan. 18, 2005).

85. See, e.g., *Trademark Dilution Revision Act of 2005: Hearing on H.R. 683 Before the Subcomm. on Courts, the Internet, and Intellectual Property of the H. Comm. on the Judiciary*, 109th Cong. 43 (2005) (statement of Mark A. Lemley, Professor of Law, Stanford University), available at <http://judiciary.house.gov/media/pdfs/printers/109th/98924.pdf> ("The owners of some famous trademarks must contend with a host of uses that may not confuse consumers, but that draw on consumer recognition of the famous mark in a way that makes it more difficult over time for consumers to associate the mark with a consistent brand image, ultimately raising consumer search costs."); Brief of Amicus Curiae the International Trademark Association in Support of Respondents at 15–16, *Moseley v. V Secret Catalogue, Inc.*, 537 U.S. 418 (2003) (No. 01-1015), reprinted in 92 TRADEMARK REP. 1139, 1161–62 (2002) [hereinafter INTA Brief] (using Morrin & Jacoby, *supra* note 49, to support the proposition that creating any association with an existing mark necessarily dilutes it).

86. See Jacoby, *Dilution in Light*, *supra* note 9, at 19–20.

87. Bird, *supra* note 39, at 3; see also Klerman, *supra* note 54, at 1764–65, 1764 & n.24 (discussing Morrin & Jacoby, though noting that their study was not designed to measure search costs); Long, *supra* note 8, at 1058 n.112 (citing Morrin & Jacoby); Maurcen Morrin et al., *Determinants of Trademark Dilution*, 33 J. CONSUMER RES. 248, 248 (2006) (adopting a model of dilution as interference with recognition and recall); Pullig et al., *supra* note 65, at 54 (same); Swann, *Dilution Redefined*, *supra* note 9, at 610–11 (relying on Morrin & Jacoby); Alexander Simonson, *The Impact of Identical Brand Names on the Strength of New Brands and Original Brands: A Study of Brand Appropriation and Dilution* 21–30 (1994) (unpublished Ph.D. dissertation, Columbia University) (on file with the Texas Law Review) (linking cognitive theory and legal concepts of dilution).

impacts of the dilutive brand on consumers,”<sup>88</sup> it claims to prove that dilution is a real problem.<sup>89</sup>

One reason cognitive models are particularly attractive to prove dilution in trademark, as opposed to other issues, such as criminal responsibility<sup>90</sup> or sex discrimination, is that trademark has always dealt in theories of consumer psychology at the general or mass level. Probabilistic causation—likely confusion or likely dilution—has provided the standard for granting a plaintiff relief.<sup>91</sup> If we were looking at brain imaging to determine whether an individual was criminally responsible for a particular act, neurological evidence might not help attribute responsibility.<sup>92</sup> But if we are only interested in the effect of an allegedly dilutive use on the group as a whole, systematic differences are enough to prove a legally relevant effect even if some people are unscathed.

For dilution proponents, another considerable advantage of the search-costs explanation is that it converts antidilution law into a protection for consumers as well as for producers. After all, we know that external search costs are inefficient and therefore welfare diminishing for consumers.<sup>93</sup> It seems natural that internal search costs would also decrease efficiency.<sup>94</sup> The cognitive theory of dilution therefore answers the common criticism that

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88. Bird, *supra* note 39, at 14.

89. As Jerre Swann puts it, “Now, happily, cognitive psychology confirms economic theory.” Swann, *Dilution Redefined*, *supra* note 9, at 614; *see also* INTA Brief, *supra* note 85, at 14, *reprinted in* 92 TRADEMARK REP. 1139, 1160 (2002) (“Dilution, indeed, is now an empirically sustainable fact.”); Simonson, *supra* note 72, at 149–50 (arguing that dilution is an empirical phenomenon that can be proved using cognitive and behavioral evidence).

90. *See* Morse, *supra* note 10, at 408–10 (critiquing the use of brain-imaging evidence about adolescent neural development to justify the result in *Roper v. Simmons*, 543 U.S. 551 (2005), which held that the death penalty could not constitutionally be applied to juveniles under eighteen).

91. For a brief period, federal dilution law required a showing of actual dilution, not merely likely dilution. *See* *Moseley v. V Secret Catalogue, Inc.*, 537 U.S. 418, 433 (2003). Nonetheless, even actual dilution could be shown by demonstrating an effect on a significant portion of the exposed population, not a universal change. *See id.* at 433, 433–34 (discussing dilution as a “lessering” or “reduc[ti]on” of a mark’s ability to identify a source, rather than a total destruction of that ability).

92. Morse, *supra* note 10, at 404.

93. Some consumers may enjoy the thrill of the chase and thus have a preference for some search costs, but the conventional story favors ease of search.

94. *See, e.g.*, INTA Brief, *supra* note 85, at 23–24, *reprinted in* 92 TRADEMARK REP. 1139, 1170–71 (2002) (arguing that dilution law protects consumers by helping them conserve their attention); Mark A. Lemley, *The Modern Lanham Act and the Death of Common Sense*, 108 YALE L.J. 1687, 1704 n.90 (1999) (“The information consumers can obtain and process is in part a function of how clear the association between mark and product remains in their minds; ‘clutter’ therefore imposes real costs on consumers.”); Sheff, *supra* note 9, at 359, 379 (arguing that confusion and dilution law both protect against nonrational consumer responses that distort purchasing decisions); Swann, *Dilution Redefined*, *supra* note 9, at 603–04 (arguing that because consumers’ lives are so hectic, they need help from strong, unique signals that simplify messages, which dilution law protects); Pulos, *supra* note 54, at 854–58 (accepting the consumer-protection argument for dilution); *cf.* Long, *supra* note 8, at 1035 (discussing change in judicial explanations of dilution towards a consumer focus).

dilution law benefits only trademark owners, not consumers.<sup>95</sup> Implicitly, the cognitive theory suggests that courts should enforce dilution law without searching for narrowing constructions, as they have done in the past when the law seemed irrational and ill defined. Dilution law can now recognize trademark owners' claims that ownership extends to portions of consumers' minds.<sup>96</sup>

#### IV. Critiquing the Cognitive Model of Dilution

Once the harm of dilution is reformulated as an increase in consumer search costs, it becomes possible to imagine an empirical test for it, although Judge Posner didn't.<sup>97</sup> This is easy to see as a major advance over previous concepts of dilution, which generally relied on intuition or *ipse dixit*.<sup>98</sup> Morrin and Jacoby's experiment showed that lab-induced dilution decreased respondents' accuracy and response times in identifying senior marks.<sup>99</sup> This seems to be strong evidence that the cognitive model is correct.

The initial question is whether we can reliably extrapolate from lab to store. In the context of race, Jerry Kang has persuasively argued that response-time differences of a few hundred milliseconds have powerful correlates in readily observable, even life-and-death, behavior.<sup>100</sup> Still, reaction times aren't meanings. Unexpected results in studies of concrete versus abstract words, for example, show that there is a lot we still don't know about what response times mean and about the relationships between

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95. See *Moseley*, 537 U.S. at 429 ("Unlike traditional infringement law, the prohibitions against trademark dilution are not the product of common-law development, and are not motivated by an interest in protecting consumers."); *Mattel, Inc. v. MCA Records, Inc.*, 296 F.3d 894, 905 (9th Cir. 2002) ("[D]ilution law protects only the distinctiveness of the mark, which is inherently less weighty than the dual interest of protecting trademark owners and avoiding harm to consumers that is at the heart of every trademark claim.")

96. See, e.g., Farley, *supra* note 38, at 1183 ("It sounds like what is being sought by the trademark bar is statutorily enforced mind control. Indeed, the International Trademark Association [INTA] testified before Congress that the injury in dilution is to the mark's ability to 'hold upon the public mind.'" (alteration in original) (citation omitted)).

97. See *Ty Inc. v. Softbelly's, Inc.*, 353 F.3d 528, 535 (7th Cir. 2003) (opining that it was not clear "what question could be put to consumers that would elicit a meaningful answer" about dilution).

98. See, e.g., RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 25 emt. f (1995) ("Direct evidence of a dilution of distinctiveness is seldom available because the harm at issue is a blurring of the mental associations evoked by the mark, a phenomenon not easily sampled by consumer surveys and not normally manifested by unambiguous consumer behavior."); Jonathan E. Moskin, *Dilution or Delusion: The Rational Limits of Trademark Protection*, 83 TRADEMARK REP. 122, 123 (1993) (observing that most cases find dilution without "meaningful empirical proof"); Lynda J. Oswald, "Tarnishment" and "Blurring" Under the Federal Trademark Dilution Act of 1995, 36 AM. BUS. L.J. 255, 283 (1999) (noting that direct evidence of blurring is "typically difficult—indeed, some commentators would say nigh-well impossible—to obtain" (footnote omitted)).

99. Morrin & Jacoby, *supra* note 49, at 274.

100. See Kang, *supra* note 10, at 1525 ("Under threat conditions that police officers face, our racial schemas incline us to shoot Black men faster."); see also ZALTMAN, *supra* note 14, at 114–15 (explaining that response latency times better predict behavior than explicitly stated beliefs).

recall, recognition, and production of words.<sup>101</sup> In Morrin and Jacoby's experiment, Godiva biscuits delayed recognition of Godiva chocolates by 73 milliseconds compared to people who had not seen any other relevant ads and by 129 milliseconds compared to people who had seen Godiva ads.<sup>102</sup> Paper-and-pencil tests of recall, as opposed to recognition, showed less dilution, but they still showed some effects.<sup>103</sup> Yet in the real world, proof that response delays persist over any appreciable time is limited.<sup>104</sup> Nor do we know at what point a response delay becomes enough to change a purchase decision. The dilution studies find some statistically significant differences in reactions between groups exposed and unexposed to dilutive ads, but statistical significance does not mean that practical effects are substantial.<sup>105</sup>

The following sections explore some problems with using the limited empirical evidence to justify the internal-search-costs model of dilution. Dilution's supporters have drawn selectively from disparate, loosely related fields to justify dilution law. Demonstrations of the powerful influence of context, conflicting evidence about the effects of word frequency on memory, and research on situations in which dilutive uses might actually improve recognition all cast doubt on the cognitive model of blurring. Nor does the available evidence support the cognitive account of tarnishment, despite its intuitive appeal. Separately, cognitive science suggests extreme difficulties in measuring actual consumer reactions without distorting them through the very act of measurement, raising doubts about the surveys used to identify dilution.

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101. Consider the following findings by Kevin Shapiro, who used MRIs to measure response times for completing sentences. A subject might see *one pond*, followed by *many \_\_\_\_\_*, in which case the right answer would be *ponds*. "Surprisingly, the response times for tasks using concrete words (saying 'many wagons,' after seeing 'one wagon') were actually longer than for tasks using more abstract words (saying 'many sounds' after seeing 'one sound')—1.8 percent longer with nouns and 3.8 percent longer with verbs." Elizabeth Gudrais, *Neurons Sort Nouns*, HARV. MAG., July–Aug. 2006, at 15, 16 (discussing Kevin A. Shapiro et al., *Cortical Signatures of Noun and Verb Production*, 103 PROC. NAT'L ACAD. SCI. 1644 (2006)). This is surprising because longer response times supposedly indicate greater demands on cognitive processing. Yet there is no indication that we have more trouble using concrete words than abstract ones in real life, and in fact people are generally *better* at recognizing concrete words than abstract words. See Simon Dennis & Michael S. Humphreys, *A Context Noise Model of Episodic Word Recognition*, 108 PSYCHOL. REV. 452, 464 (2001) (suggesting that concrete words are more readily recognizable because they appear in fewer contexts).

102. Morrin & Jacoby, *supra* note 49, at 269 tbl.1.

103. Pullig et al., *supra* note 65, at 61–62.

104. See Klerman, *supra* note 54, at 1765 (arguing that an increase of 125 milliseconds, as produced in the Morrin and Jacoby study, is not economically significant). Pullig et al., however, found statistically significant effects on brand consideration and choice from exposure to dilutive ads even after a five-day delay. Pullig et al., *supra* note 65, at 63–64. These results are the most persuasive of the various academic studies attempting to measure dilution, though they still suffer from some of the flaws discussed *infra*.

105. See, e.g., DAVID W. BARNES, STATISTICS AS PROOF: FUNDAMENTALS OF QUANTITATIVE EVIDENCE 143–44 (1983) (discussing the difference between statistical and practical significance).

### A. Context Effects

In the *Perryman* case, Judge Posner did not explain why it was a problem for consumers to have to think harder to figure out the entity to which *Tiffany's* refers.<sup>106</sup> In fact, he did not define what it means to think harder. With blurring, the result of the existence of *Tiffany's-the-restaurant* is that we need more context to figure out which *Tiffany's* someone is talking about, but we generally have that context.<sup>107</sup> Product categories, images in ads, and even distinctive fonts can provide immediate context for a mark. Preexisting associations reinforce each other so that computer-related meanings of *apple* are more strongly and effectively activated in an Apple Computer ad, and fruit-related meanings are activated at the grocery store.<sup>108</sup>

When context is king, dilution loses much of its theoretical appeal.<sup>109</sup> Consider: Have you ever put your suitcases into a cab in a major U.S. city, asked for "American" or "United," and received the response "Which one?"<sup>110</sup> No rational cab driver would take a person who said "American" to the local American Apparel or a person who said "United" to the local United Van Lines. This is so even though American and United are conceptually weak, diluted marks. The cab driver experiences no significant search costs because of his knowledge of the places that people ask cab drivers to

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106. See *Ty Inc. v. Perryman*, 306 F.3d 509, 511 (7th Cir. 2002) (stating only that the dilution would cause consumers to "incur as it were a higher imagination cost"); see also Austin, *supra* note 9, at 891 n.276 (arguing that Posner failed to identify harm from a higher imagination cost, given that we routinely tolerate the imagination cost of multiple references, such as the numerous trademark and nontrademark uses of *apple* despite the famous Apple trademark); *id.* at 895 (arguing that consumers may benefit from thinking harder, at least if the thinking is fun). But see Pulos, *supra* note 54, at 860 ("[T]he imagination costs the consumer encounters toll not only the consumer, but the market as a whole. Simply put, any amount of time a consumer spends 'thinking harder' about the meaning of a mark is time she could be spending buying something else or otherwise contributing to society."). Setting aside Pulos's equation of buying with "contributing to society," it has yet to be established that people are otherwise inert while they process information. Often enough, they may continue walking down store aisles or engaging in other activity. Or they may be sitting watching television, in which case their attention may be diverted from the next ad while they are struggling to process the preceding ad. Whether this represents social loss is hard to say.

107. See Roger W. Shuy, *Linguistic Thoughts on Trademark Dilution 5–6* (2003) (unpublished manuscript, on file with the Texas Law Review).

108. See René Zeelenberg et al., *Semantic Context Effects and Priming in Word Association*, 10 PSYCHONOMIC BULL. & REV. 653, 653, 656 (2003) (finding that when semantically ambiguous words were disambiguated with context, such as *organ* with *music*, the words were far less likely to subsequently cue inconsistent meanings, such as *organ* with *body part*). This complicates the cognitive model's claim that phonological similarities between marks lead to interference with the meaning of both marks.

109. In fact, some psychologists argue that the basic spreading-activation model on which the cognitive theory of dilution is based misconceives how memory is actually constructed in the mind; current context determines which past experiences will be recalled and deemed relevant. *E.g.*, Antonia Kronlund et al., *Consumer Memory, Fluency, and Familiarity*, in THE HANDBOOK OF CONSUMER PSYCHOLOGY (Curtis P. Haugtvedt et al. eds., forthcoming 2008) (manuscript at 26–37, on file with the Texas Law Review).

110. You might be asked "LaGuardia or JFK?"—another question that depends on your understanding the referent. You are not being asked for political or historical opinions.



go. “Words in isolation seldom occur in our lives, except in spelling bees and grocery lists. Since humans commonly use context to disambiguate and figure out what is meant, it is reasonable to expect them to keep on doing this with trademarks.”<sup>111</sup>

Product categories provide an important type of context. Robert Peterson and his confederates surveyed major product categories and trademarks, examining typicality (the extent to which naming a brand caused a respondent to produce its major product category, as McDonald’s would produce “fast food”) and dominance (the extent to which naming a product category caused a respondent to produce a brand as the first that came to mind).<sup>112</sup> Leading brands’ typicality was much greater than their dominance—on average three times greater.<sup>113</sup> In other words, marks are easy to recognize as category members without being at the top of a respondent’s mind in the category.<sup>114</sup> Moreover, the differences between recognition when prompted with a brand and recognition when prompted with a category may have significant real-world effects. Even if the Heineken name in the abstract produces less association with beer because of Heineken popcorn, consumers may still identify it as a beer if they are prompted with the category, and when they go to the store to buy beer, it will be right there on the shelf.<sup>115</sup> “It is hard to think of situations where consumer search is aided by the ability to remember the product category associated with a brand. Consumers just do not confront trademarks in the abstract very often . . . .”<sup>116</sup> They certainly do not encounter many tombstone

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111. Shuy, *supra* note 107, at 6. Shuy does think dilution might be possible in context-free environments. *See id.*; *see also* Simonson, *supra* note 72, at 156 (observing that after the addition of Sony bleach to the marketplace, “[t]he issue is whether, at the time of exposure to the brand name, there is sufficient cuing whereby the individual would know perceptually to which of the two Sony products the word Sony is referring”); Jerre B. Swann, Sr., *Dilution Redefined for the Year 2000*, 37 HOUS. L. REV. 729, 759 (2000) (“Dilution is . . . the difference between a brand with a meaning substantially in the abstract, and a brand with a substantial meaning only in context or after cueing.”).

112. *See* Peterson et al., *supra* note 54, at 259–63.

113. *See id.* at 261. Half of the brands with typicality over 90% showed low levels of dominance. *See id.* at 262.

114. *Cf.* Joan Meyers-Levy, *The Influence of a Brand Name’s Association Set Size and Word Frequency on Brand Memory*, 16 J. CONSUMER RES. 197, 202–03 (1989) (finding that association-set size has little effect on recognition tasks, as compared to recall).

115. *See* Klerman, *supra* note 54, at 1765–66; *see also* Dennis & Humphreys, *supra* note 101, at 463 (finding that recall and recognition differ in the effects of time and interference by other words and that recognition persists when recall fails).

116. Klerman, *supra* note 54, at 1765; *see also* Daniel J. Howard et al., *The Effects of Brand Name Similarity on Brand Source Confusion: Implications for Trademark Infringement*, 19 J. PUB. POL’Y & MARKETING 250, 261 (2000) (finding that in situations of high involvement, as when a purchase actually turns on a decision, consumers process more brand-related information than when they are just looking at ads).

ads focused on product information without images or logos, which was the form used in the Morrin and Jacoby study.<sup>117</sup>

Anecdotal evidence from the market further indicates that marks can be strong without being unique. Steve Hartman examined twenty-one trademarks that were the leading brands in their product categories in 1925, nineteen of which were also leading in 1985 (the other two were in second place).<sup>118</sup> All but four had nontrademark meanings, including Swift, Life Savers, Ivory, and a variety of personal names.<sup>119</sup> In the abstract, these marks “are bound to be associated with or call to mind things other than the products they identify.”<sup>120</sup> Context has been enough to keep them strong as marks.<sup>121</sup>

Why, then, did laboratory studies reveal an apparent dilutive effect from a single exposure to Dogiva biscuits and Heineken popcorn? One possibility is that the test environment was itself decontextualizing, depriving subjects of the cues they would ordinarily use to distinguish a dilutive use from a senior mark. Morrin and Jacoby told their test subjects, students who were taking marketing courses, that they would be tested on the information provided in the ads,<sup>122</sup> which themselves were not the image- and emotion-laden appeals to which consumers are generally subjected. This method made it likely that subjects would focus on information, not on the contextual, emotional associations that serve to distinguish brands in the real world.<sup>123</sup> Another sign that the Morrin and Jacoby study was somewhat unusual comes from the prominent disclaimers used to ensure that they could test dilution,

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117. Morrin and her colleagues subsequently tested the effects of logos but still did not present actual ads; they measured dilution by prompting study participants with brand names, without any product or category information. See Morrin et al., *supra* note 87, at 251–52.

118. Steve Hartman, *Brand Equity Impairment—The Meaning of Dilution*, 87 TRADEMARK REP. 418, 429–30 (1997).

119. *Id.* at 429.

120. *Id.*

121. *Id.* at 430.

122. Morrin & Jacoby, *supra* note 49, at 268–69.

123. See *id.* at 269, 275 (describing and giving examples of the ads presented in the study). The Pullig et al. studies, which otherwise substantially improved on the Morrin and Jacoby studies, also used very stark ads, containing only a brand name, a product category, and two claims (along with a prominent disclaimer for the dilution test ads). See Pullig et al., *supra* note 65, at 57 (“We told participants that the advertisements were depicted in this simple fashion because we were interested in their reactions to the *informational* content of the advertisements.” (emphasis added)). Likewise, Simonson tested reactions to a typed list of product names and categories without further description of the new products. See Simonson, *supra* note 87, app. c at 120–21, app. d at 122–27 (reproducing the list of new brands and questions presented to respondents in Simonson’s study). Context, imagery, and other cues were missing. Simonson’s questions asked respondents how they would feel about the original brand after learning of a new, unrelated product using the same name. See *id.* app. d at 124–25. He acknowledged that the testing context, including immediate contrast with the original brand and lack of price and quality information, limited the validity of his results. See *id.* at 87–88 (detailing the limitations of the methodology).

rather than confusion.<sup>124</sup> No test subject had difficulty identifying the source of the products.<sup>125</sup> While prominent disclaimers may work as part of tombstone ads, other studies show that disclaimers rarely work so well in naturally occurring ads.<sup>126</sup> The very success of the disclaimers indicates an unusual type of processing compared to information processing in more natural market settings.

### B. Association Sets and Uncommon Words

The previous subpart focused on the gaps between laboratory studies and real-world experiences of trademarks. But what about the underlying experimental and theoretical bases for the cognitive account of dilution? This subpart addresses some basic components of that account, dealing with how the mind processes common and uncommon words and meanings.

Jerre Swann, a well-known trademark practitioner and former editor of *The Trademark Reporter*, has been a major proponent of using cognitive theories to justify and define dilution. He cites psychological studies to show that adding unrelated associations to a famous mark causes dilution and interferes with consumers' ability to retrieve the mark because:

“[R]are words [like “Kodak”] are more distinctively encoded than (are) common words,” and words that have a limited number of “association set[s]” (e.g., “Cheer” for an encouraging shout and an all-temperature detergent), can likewise be readily retrieved. . . .

“Some empirical research has shown[, on the other hand,] that the greater the number of associations a word has (the less distinctive it is)[,] the more difficult it is for the individual initially to encode the word in memory or later to recall the word.”<sup>127</sup>

124. See Morrin & Jacoby, *supra* note 49, at 275 (indicating that the study's stimuli included language such as “Note: Heineken popcorn is *NOT* associated with the makers of Heineken beer”).

125. *Id.* at 268–69; see also Pullig et al., *supra* note 65, at 57–58, 63–64 (finding that only very small percentages of respondents, from 1.2% to 3.6%, failed to report the disclaimers); Simonson, *supra* note 87, at 125 (using a detailed disclaimer that “[e]ach of the products . . . bears no relation to any know[n] products that you may be familiar with. As an example, if you see below ‘Mercedes-Benz CD player,’ it has NO relation to the familiar Merccdes-Benz automobiles other than name. These types of situations do arise. Some examples you may be familiar with are Ritz crackers and Ritz hotels . . .”).

126. See, e.g., Jacob Jacoby & Robert Lloyd Raskopf, *Disclaimers in Trademark Infringement Litigation: More Trouble than They Are Worth?*, 76 TRADEMARK REP. 35, 36, 54–58 (1986) (arguing that lack of exposure, information loss, and comprehension failure render disclaimers ineffective); Gita Venkataramani Johar & Carolyn J. Simmons, *The Use of Concurrent Disclosures to Correct Invalid Inferences*, 26 J. CONSUMER RES. 307, 320 (2000) (arguing that because of cognitive-processing limitations, “obviously effective disclosures (e.g., those that are encoded, those that are explicit, etc.) are often ineffective”); Mitchell E. Radin, *Disclaimers as a Remedy for Trademark Infringement: Inadequacies and Alternatives*, 76 TRADEMARK REP. 59, 61–67 (1986) (discussing failures of disclaimers in actual market conditions).

127. Swann, *supra* note 111, at 755 (alterations in original) (footnotes omitted) (quoting Meyers-Levy, *supra* note 114, at 198 and Moskin, *supra* note 98, at 136). All of those quotation marks are there for a reason—Swann is extrapolating from a study that itself extrapolates from

Swann's citation to the work of Joan Meyers-Levy supposedly shows that increasing the association-set size of a brand decreases the consumer's ability to retrieve brand-relevant information.<sup>128</sup> There are at least three problems with this extrapolation. First, the underlying research uses a definition of "association set" that may not be intuitive to lawyers. Association set is defined as the number of words that are named by at least two people when a large number are asked the first word that comes to mind in response to a target word.<sup>129</sup> Unless a dilutive use was the first thing that came to mind, it would not affect this measure of association. Second and relatedly, even if a dilutive use dominated some respondents' minds, it would only increase the set size by one. The underlying research does not come close to identifying any effect from an increase of one association. Third, Meyers-Levy does not measure change, though Swann applies her work to change over time; her research, like that of others in the field, compares words with existing high- and low-measured frequency and association-set sizes.<sup>130</sup>

Still, assuming those problems away, the Meyers-Levy research may have implications for famous brands. High-frequency words are easy to process, and thus we do not encode them distinctively, meaning that we do not pay much attention to them.<sup>131</sup> If they are used as brand names, we will have trouble remembering the brand. Low-frequency words are relatively difficult to encode, and thus we process them more meaningfully.<sup>132</sup> Given that advertisers have trouble getting consumers to pay attention to advertising in general, as Part I suggests, low-frequency words seem more desirable as marks. Meyers-Levy offers *ivory* as an example of a low-frequency word

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nontrademarks to trademarks. Kodak and Cheer are his additions, and they are problematic, illustrating the difficulty of transferring basic research to substantive legal conclusions. For Kodak, "distinctively encoded" is not the same as famous, though it does resemble the legal concept of fanciful marks, which are coined words that are unique to the brand. Uniqueness itself is not necessarily an aid to memory. Consider some fanciful drug names: Xalatan, Cerebyx, Symbyax. Unless you know more about them, their phonological uniqueness has little meaning and in fact may make them forgettable. For Cheer, Swann has skipped a number of related meanings. The noun alone can mean lightness of spirits, a source of joy, a shout of approval, a rehearsed phrase or jingle shouted in unison, and festive food and drink (not to mention the "Bronx cheer"), and the verb has both transitive and intransitive forms. See AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE 317 (4th ed. 2000). In any event, the number of dictionary definitions is not the same as the association-set size—a technical term. See *infra* notes 128–30 and accompanying text. I belabor the point because we have no particular idea how many associations it takes to give a word a "large" or "small" set, especially when we are comparing nontrademark apples to trademark Orangina.

128. See Meyers-Levy, *supra* note 114, at 205.

129. See Douglas L. Nelson et al., *Interpreting the Influence of Implicitly Activated Memories on Recall and Recognition*, 105 PSYCHOL. REV. 299, 300 (1998).

130. See Meyers-Levy, *supra* note 114, at 201–04.

131. *Id.* at 198.

132. See *id.* There is already a bit of a conflict here with the idea that trademarks exist to make things easy for consumers.

that therefore relates strongly to soap.<sup>133</sup> When a word is low frequency, a particular use will cause people to encode only relevant information presented in context because their attention will be drawn to specific attributes of the word (for *ivory*, color and not elephants).<sup>134</sup> Thus, with a low-frequency word, even a large association-set size will not interfere with memory.<sup>135</sup> “Indeed, it is possible that memory might be somewhat enhanced as the size of the association set increases [for low-frequency words] because more associations will be available to relate meaningfully to the brand name in a distinctive manner.”<sup>136</sup> By contrast, Swann’s reasoning is that a use that takes a mark from low to high frequency or increases the associations of a high-frequency mark creates a branding problem by making the mark harder to recognize.<sup>137</sup>

Meyers-Levy experimented with fictitious antiperspirants, blemish medications, and disposable razors, choosing brand names from words with known frequencies and association-set sizes.<sup>138</sup> Low-frequency words (fifteen or fewer uses per million words) were *crisp*, *moose*, *bribe*, *cork*, *shove*, and *dusk*.<sup>139</sup> High-frequency words (one hundred or more per million) were *yard*, *lake*, *room*, *cloud*, *day*, and *round*.<sup>140</sup> One might wonder about the selling power of Yard antiperspirant, Cloud blemish medication, and Round razors, but a more important thing to note is that low-frequency words are still quite recognizable.

Experimental subjects heard ads for products, which they were told were existing regional brands, and were instructed to consider how clear, grammatical, and professionally written the ads were.<sup>141</sup> Next, they were asked to recall and write down all statements they could remember from the ads.<sup>142</sup> Then, they were shown lists of brand names, instructed that some might be “impostors,” and asked to indicate whether they recognized the brands.<sup>143</sup> The results showed that for high-frequency brand names, recall was poorer (both immediately and at twenty-four hours) for words with a

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133. *Id.* at 198–99.

134. *See id.* at 199 (“[E]ncoding of concepts in the association set is restricted to only those items that meaningfully yet distinctively relate the word with other relevant information presented in the context.” (citation omitted)).

135. *Id.*

136. *Id.*

137. Swann, *supra* note 111, at 755.

138. Meyers-Levy, *supra* note 114, at 200.

139. *See id.* at 201 (noting that *crisp*, *moose*, and *bribe* have large set sizes, and *cork*, *shove*, and *dusk* have small set sizes).

140. *See id.* (noting that *yard*, *lake*, and *room* have large set sizes, and *cloud*, *day*, and *round* have small set sizes).

141. *Id.*

142. *Id.* at 201–02.

143. *Id.* at 202.

large association-set size.<sup>144</sup> With low-frequency brand names, recall was similar regardless of set size.<sup>145</sup>

That sounds like good reason for marketers to minimize the associations evoked by their famous brands. The flaw is the assumption that famous brand names are high frequency or can be made so by dilution.<sup>146</sup> In the British National Corpus, assembled from large samples of spoken and written English, only 7,726 words occur at least ten times per million (which would be one use in a 300-page book).<sup>147</sup> In the 2003 release of the American National Corpus, which is a similar endeavor, only one of the top forty brands in BusinessWeek's Best Global Brands 2006<sup>148</sup> had frequencies approaching one hundred per million words,<sup>149</sup> and that one, Microsoft, appears to be an artifact.<sup>150</sup> Kodak—Swann's example of a famous mark subject to

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144. *Id.* at 202, 205.

145. *Id.*

146. Using invented brands with common nouns may have distorted the results in other ways. Like proper names, recognized brands are processed differently in the brain than ordinary nouns, though the ultimate implications of that finding are unclear. See Possidonia F.D. Gontijo et al., *How Brand Names Are Special: Brands, Words, and Hemispheres*, 82 *BRAIN & LANGUAGE* 327, 327 (2002) (finding processing of brand names to be less lateralized within the brain than that of common nouns).

147. See Global English, <http://www.audiencedialogue.net/english.html> (citing GEOFFREY LEECH ET AL., *WORD FREQUENCIES IN WRITTEN AND SPOKEN ENGLISH* (2001)); see also British National Corpus, <http://www.natcorp.ox.ac.uk> (providing a searchable collection of written and spoken language). Mark Lemley suggested to me that word frequency in advertising contexts will likely be different from frequency in other areas. I have found no evidence on this one way or another, and I have no reason to think that frequency-mediated processing of words differs in relevant ways depending on whether or not the words appear in an ad. Of course, identifying a text as an ad affects the level of attention a consumer is likely to give to it, but there is no indication that this invalidates accepted frequency measures.

148. INTERBRAND & BUSINESSWEEK, *BEST GLOBAL BRANDS 2006: A RANKING BY BRAND VALUE 11–12* (2006), available at [http://www.ourfishbowl.com/images/surveys/BGB06Report\\_072706.pdf](http://www.ourfishbowl.com/images/surveys/BGB06Report_072706.pdf).

149. The American National Corpus (ANC) is not a random sample, but it is the best available corpus for American English. The second release of the ANC contains 22,393,704 words by one measure (one could also use a higher number). See American National Corpus, Second Release Contents, <http://americannationalcorpus.org/SecondRelease/econtents.html>. To get rough estimates of frequency per million, I divided the number of instances of a word in the second release by 22.39. In some cases, I aggregated variants (467 *coke*, 11 *cokes*, 7 *coca-cola*), but given the numbers at issue, it did not make a difference. Aside from *microsoft*, by far the highest frequency terms in the top forty brands were *ford/fords* (roughly 44 uses per million words), *apple/apples* (37 per million), and *disney/disneyland/disneyworld* (38 per million), the first two of which plainly include some nonmark uses, such as personal names and generic words. Among the remaining top forty brands with measurable frequencies, the average frequency was about 7 per million. (I did not measure a few multiword brands, such as Goldman Sachs.)

150. Depending on how one counts the number of words in the second release, Microsoft's frequency is between 78 and 91 per million. The ANC contains a large number of articles from the Microsoft-owned online magazine *Slate* and the Biomed database; in the latter case, most instances of *Microsoft* appear to be indications that a table was prepared using Microsoft Excel. Without the *Slate* articles (but including Biomed), Microsoft's frequency in the written portion of the ANC is slightly over 14 per million words. Email from Keith Suderman, Research Associate, American National Corpus, to Rebecca Tushnet, Professor, Georgetown University Law Center (Nov. 1, 2006, 11:06 EST) (on file with the Texas Law Review) (using data from the second release of the ANC).

dilution—had a frequency of approximately seven per million, Hyatt and Godiva were slightly above one, and Heineken was below one. Thus, even dilutive uses that *doubled* the frequency of exposure to these marks would still leave them as low frequency. There just aren't that many high-frequency words.<sup>151</sup>

The one study I have found that specifically addressed trademarks and frequency effects found that popular brands were recognized with a speed and accuracy similar to that of low-frequency words.<sup>152</sup> Meyers-Levy's findings, then, in fact suggest that dilution does not harm many famous trademarks because adding associations to low-frequency words does not interfere with retrieval or recognition—and may even help.<sup>153</sup>

### C. Reaffirmation Effects

As suggested briefly in the previous subpart, there are reasons to think that at least some dilutive uses can reinforce, rather than chip away at, the strength of a mark. Any delay in recognizing which Tiffany's or which Apple a particular use refers to may be compensated for by easier recall of the marks.

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151. Sheff, another dilution proponent, makes the same mistake as Swann in discussing word-frequency research. See Sheff, *supra* note 9, at 363 (“Studies have found that low-frequency words—those uncommon in ordinary usage—are more easily recognized when encountered after an initial exposure than are high-frequency words. . . . Thus, one reason the law may be more protective of unique marks is that—absent any other measure of consumer reaction to a trademark—such marks, once encountered, may more likely be recognized than non-unique marks . . .”). Sheff conflates low-frequency words (like *crisp*, *moose*, *bribe*, *cork*, *shove*, and *dusk*, see Meyers-Levy, *supra* note 114, at 201) with uncommon words (which *crisp* et al. surely are not in the lay understanding Sheff invokes), then further conflates low frequency with uniqueness, even though uniqueness is determined by the extent to which a term refers to only one thing rather than by the number of times people use it to mean that thing.

152. See Antonia Kronlund, *Remembering Words and Brand Names After a Perception of Discrepancy* 59–60 (Spring 2006) (unpublished Ph.D. dissertation, Simon Fraser University), available at <http://ir.lib.sfu.ca/handle/1892/2658> (testing brands including Camel and Marlboro for cigarettes, Levis and Wrangler for jeans, Coke and Pepsi for soda, and Tide and Sunlight for detergent); see also Gontijo et al., *supra* note 146, at 331, 335 (finding that familiar brand names were recognized more slowly and less accurately than common nouns with frequencies of 100–160 per million and that capitalization increased speed of recognition); Antonia Kronlund & Bruce W.A. Whittlesea, *Remembering Words and Brands After a Perception of Discrepancy* 30 (Nov. 20, 2006) (unpublished manuscript, on file with the Texas Law Review) (finding that brand names are recognized through recollection, like low-frequency words).

153. In the end, association-set size may simply not be all that important in real-world settings. Other studies suggest that context moderates any effect of association-set size. See Nelson et al., *supra* note 129, at 301 (“When targets are presented within a second or so of key context words during the study trial, [target set size] effects are nearly eliminated.”). A switch in attention to another task for a few minutes does the same, meaning that exposure to diluting marks as part of the various activities of daily life, instead of in time-limited lab studies, might not cause the posited effects. See *id.* at 301–02, 308 (observing that several minutes spent multiplying numbers can eliminate target-set-size effects).

In essence, exposure to near variants or uses in other contexts makes the trademark more familiar and thus more easily retrieved from memory.<sup>154</sup> This process can add value in the same way that marketers think preexisting associations carried by descriptive or suggestive terms add value to a trademark. Words with multiple associations may be more easily activated, or reference to one word may “prime” us to recall a similar word.<sup>155</sup> Tiffany’s-the-restaurant may make us think of Tiffany’s-the-jeweler when we are at lunch thinking of gifts for Mother’s Day.<sup>156</sup> In one experiment that

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154. Familiarity increases likability, among other things. See Sheff, *supra* note 9, at 365 (stating that research shows that increased exposure leads to increased preference for a stimulus); sources cited *supra* note 27; cf. Laura R. Bradford, *Parody and Perception: Using Cognitive Research to Expand Fair Use in Copyright*, 46 B.C. L. REV. 705, 743, 743–44 (2005) (“During initial introduction to a brand or message, frequency of exposure increases familiarity and likeability.”). Bradford points to research indicating that oversaturation eventually reverses the likability effect, as people get annoyed by the millionth repetition of an ad. See *id.* at 743–44. Trademark owners may deal with this effect by changing their ad campaigns. People get fed up with repetitive scripts, but they do not get tired of Coke in the same way. See Hayden Noel, *The Spacing Effect: Enhancing Memory for Repeated Marketing Stimuli*, 16 J. CONSUMER PSYCHOL. 306, 307–08 (2006) (“[T]he encoding variability hypothesis states that the more variable the first and second presentations of a stimulus, the more paths there are to retrieval at test, and so the more likely it is that the stimulus will be recalled. For example, . . . people had better recall of a brand name after seeing two ads for the same brand than after viewing two repetitions of the same ad.” (citation omitted)); Rik Pieters et al., *Breaking Through the Clutter: Benefits of Advertisement Originality and Familiarity for Brand Attention and Memory*, 48 MGMT. SCI. 765, 765 (2002) (finding that the best advertisements combined familiarity and originality). The source of backlash, as Bradford notes, is “unvaried” exposure. Bradford, *supra*, at 744. Variety is the spice of advertising, and dilutive uses are likely to provide variety.

155. See Meyers-Levy, *supra* note 114, at 197 (noting that *American* is a memorable brand for airlines because of the diverse meaningful concepts already associated with it). Priming generally helps recall and production. That is, if people see a target word, then later are given related words as cues and asked to say the first word that comes to mind, they are more likely to respond with the target than if they have not been initially primed with the target. See H. Shanker Krishnan & Dipankar Chakravarti, *Memory Measures for Pretesting Advertisements: An Integrative Conceptual Framework and a Diagnostic Template*, 8 J. CONSUMER PSYCHOL. 1, 7 (1999) (finding that priming works with both semantic and phonological cues like word fragments); Douglas L. Nelson & Leilani B. Goodmon, *Experiencing a Word Can Prime Its Accessibility and Its Associative Connections to Related Words*, 30 MEMORY & COGNITION 380, 380 (2002) (noting that priming has been observed under a wide variety of conditions involving free association); René Zeelenberg et al., *Priming in a Free Association Task as a Function of Association Directionality*, 27 MEMORY & COGNITION 956, 959 (1999) (observing that priming in free association was dependent on the existence of an association between a target and a cue). Priming also works with features like colors and pictures. See Johar et al., *supra* note 27, at 143 (noting that background pictures and colors on a Web page prime product choice, though consumers are not aware of this).

Priming effects are greater for low-frequency words (like *trademarks*), for words with smaller sets of associates, and for words whose associates are also associated with each other, so that there are dense interconnections. Nelson & Goodmon, *supra*, at 391. Some of this is consistent with the cognitive theory of dilution, but it is notable that priming effects exist even when association sets are large and thinly connected—even, that is, under conditions approximating dilution.

156. See Hartman, *supra* note 118, at 424 (observing that the second use of a mark in a different product class may serve as a reminder of the first mark); Maureen Morrin, *The Impact of Brand Extensions on Parent Brand Memory Structures and Retrieval Processes*, 36 J. MARKETING RES. 517, 518 (1999) (finding that brand extensions can improve retrieval of the core brand); Chris Brown, Comment, *A Dilution Delusion: The Unjustifiable Protection of Similar Marks*, 72 U. CIN.



was supposed to provide evidence for the cognitive model of tarnishment, exposure to ads for a Hyatt tattoo parlor actually increased the value subjects placed on the Hyatt name in choosing hotels.<sup>157</sup> (An important caveat, however, is that priming effects, like dilution effects, are typically small and could be unimportant to famous marks.<sup>158</sup>)

Beyond priming, dilutive uses may increase the richness of a term's associations. Multiplication of associations can aid recall of trademarks comprising uncommon words.<sup>159</sup> The cognitive model of dilution posits that consumers do not like to think hard. If it is effortful to distinguish one Tiffany's from another, they will tune out and think less of both. But sometimes consumers like to think—we like mystery, incongruity. The uniform model that says thinking is hard not only denigrates consumers, it misdescribes us.<sup>160</sup> Recall that low-frequency words are remembered better

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L. REV. 1023, 1038 (2004) (“Arguably, use of a similar brand name could actually benefit the original brand by activating the memory of the original brand in a viewer’s working memory.”); cf. Pullig et al., *supra* note 65, at 60–61 (finding reinforcement and faster recognition times for the original brand after exposure to an identical, unrelated brand with similar product attributes or in a similar category, though finding inhibition when product attributes and categories were substantially different). If consumers are not paying much attention, they are likely to be primed by superficial resemblances. See, e.g., Chris Janiszewski, *Preattentive Mere Exposure Effects*, 20 J. CONSUMER RES. 376, 376 (1993) (suggesting that incidental exposure to logos, brand names, or pictures of objects may lead to more favorable product evaluations even when consumers do not notice the initial presentation); Dominika Maison et al., *Predictive Validity of the Implicit Association Test in Studies of Brands, Consumer Attitudes, and Behavior*, 14 J. CONSUMER PSYCHOL. 405, 405 (2004) (reviewing previous findings that exposure to ads influences brand attitudes even when consumers have no memory of the exposure and even when they are explicitly trying to avoid the products depicted in the ads).

157. See Joel H. Steckel et al., *Dilution Through the Looking Glass: A Marketing Look at the Trademark Dilution Revision Act of 2005*, 96 TRADEMARK REP. 616, 635 (2006). Steckel et al. explain their “surprising” results as follows: “People who hold strong opinions are likely to examine inconsistent information in a biased manner. The salience of the inconsistency leads them to counterargue the inconsistent information. This leads to the original opinion being even more strongly held than before the information was presented.” *Id.* They argue, however, that because the cognitive model of dilution is true, it must be the case that repeated exposures to the Hyatt tattoo parlor would have had the opposite effect. See *id.* (“Only upon repetition, can the salience of the allegedly diluting stimulus potentially subside and the corresponding counterarguing cease. The gradual whittling away process can begin since the stimulus now travels under the radar.”).

158. See Zeelenberg et al., *supra* note 108, at 657 (citing studies indicating that priming typically increases the probability of producing a primed word by 5%–10% over baseline); see also Nelson & Goodmon, *supra* note 155, at 393–94 (observing that words that are most likely to come to mind in response to cues show limited priming because the baseline probability that they will be produced without priming is already so high).

159. See generally Nelson & Goodmon, *supra* note 155 (reporting the results of experiments showing greater priming effects for low-frequency words, as compared to high-frequency words, due at least in part to increases in activation).

160. See, e.g., Russell H. Fazio et al., *On the Development and Strength of Category–Brand Associations in Memory: The Case of Mystery Ads*, 1 J. CONSUMER PSYCHOL. 1, 10 (1992) (“[Our] findings are consistent with a growing literature that implicates cognitive effort in advertising effectiveness. . . . [Other research] found self-generated conclusions from print ads were more accessible (and persuasive) than identical conclusions stated explicitly in the ad.”). See generally HENRY JENKINS, *CONVERGENCE CULTURE: WHERE OLD AND NEW MEDIA COLLIDE* (2006)

because they require more processing to encode in memory—an instance of “thinking hard” that is useful to trademark owners. In essence, there may be a tradeoff between ease and richness of processing. Some difficulty in retrieval prompts more mental processing, which itself leads to better long-term memory for the relevant concepts.<sup>161</sup> The delayed response times that Morrin and Jacoby saw as evidence of dilution when they tested subjects with a single recognition test could have improved the strength of the diluted marks in the long run.<sup>162</sup>

Creative use of language, which is involved in many dilution cases, may be especially reinforcing, as courts have hinted at when finding humorous uses nondiluting.<sup>163</sup> Although people don’t like information overload, we do

(discussing the powerful emotional and often financial investments fans make in their favorite products, spending hours investigating and discussing details).

161. See, e.g., Mark R. Forehand & Kevin Lane Keller, *Initial Retrieval Difficulty and Subsequent Recall in an Advertising Setting*, 5 J. CONSUMER PSYCHOL. 299, 318–19 (1996) (finding that ads that are initially very easy to remember do not trigger extensive processing and are harder to remember in the long run); Noel, *supra* note 154, at 308 (discussing mental reconstruction’s positive effects on long-term memory); Henrik Sjödin & Fredrik Törn, *When Communication Challenges Brand Associations: A Framework for Understanding Consumer Responses to Brand Image Incongruity*, 5 J. CONSUMER BEHAV. 32, 38 (2006) (“Incongruity can be seen as challenging and interesting in the context of well-known brands that often may suffer from boredom. . . . [A] challenging ad will cause cognitive elaboration and thoughts about how the ad fits with the established brand image. This elaboration may increase the salience of the brand in memory, which in turn would lead to enhanced brand attitude.” (citations omitted)); Kronlund, *supra* note 152, at 19–20, 23 (finding that perceptions of discrepancy resolved by more information identifying a brand enhance later recognition of the brand). In a more unusual illustration of the trade-off between ease of processing and ultimate accessibility of information, researchers found that using an untrustworthy spokesperson caused consumers to remember ad claims faster than using a trustworthy spokesperson, apparently because the untrustworthy spokesperson triggered more evaluation of the message. The attitudes toward the ad claims were just as positive for both sets of spokespeople, but the untrustworthy spokesperson created stronger and more accessible attitudes. See Joseph R. Priester & Richard E. Petty, *The Influence of Spokesperson Trustworthiness on Message Elaboration, Attitude Strength, and Advertising Effectiveness*, 13 J. CONSUMER PSYCHOL. 408 (2003).

162. As Forehand and Keller found:

[T]he more time a participant needed to successfully retrieve an item at an initial trial, the more likely it was that the item would be recalled at a later trial. . . . [D]ifficult retrieval attempts provide an opportunity for a second encoding of the to-be-recalled information. . . . By increasing overall retrieval effort and intensity, this second encoding should strengthen the existing retrieval routes to the item and therefore increase the probability of recall at delay. . . . [D]ifficult initial retrievals also increase the probability that unusual retrieval routes will be used and reinforced.

Forehand & Keller, *supra* note 161, at 304.

163. See *Jordache Enters., Inc. v. Hogg Wyld, Ltd.*, 828 F.2d 1482, 1489, 1489–90 (10th Cir. 1987) (“[P]arody tends to increase public identification of a plaintiff’s mark with the plaintiff.” (quoting *Jordache Enters., Inc. v. Hogg Wyld, Ltd.*, 625 F. Supp. 48, 57 (D.N.M. 1985)); see also *Hormel Foods Corp. v. Jim Henson Prods., Inc.* 73 F.3d 497, 506 (2d Cir. 1996) (adopting the reasoning in *Jordache*); *Tommy Hilfiger Licensing, Inc. v. Naturc Labs, LLC*, 221 F. Supp. 2d 410, 422 (S.D.N.Y. 2002) (same) (“[T]he joke itself reinforces the public’s association of the mark with the plaintiff.” (alteration in original) (quoting Robert C. Denicola, *Trademarks as Speech: Constitutional Implications of the Emerging Rationales for the Protection of Trade Symbols*, 1982 WIS. L. REV. 158, 189)); *Yankee Publ’g Inc. v. News Am. Publ’g Inc.*, 809 F. Supp. 267, 282

very much like to play with language. Mental elaboration of a word, for example, generating rhymes for that word, improves memory by increasing the subject's involvement in processing and by providing redundant paths for retrieval of the initial word.<sup>164</sup> As one commentator argues, "[T]he mental processing involved in interpreting the nature of the pun on Federal Express incorporated in the name Federal Espresso could actually do more to assist a person's future recall of Federal Express than just seeing a sign with the brand on it."<sup>165</sup>

By adding branches to a trademark's mental tree, multiple associations make it bigger, which improves availability in a well-forested mind. But, dilution proponents will respond, the associations of a famous mark are *controlled* by a single source—the tree is carefully pruned. In fact, no owner can control a mark in this way. There is nothing (as yet) that Coca-Cola can do to erase my memory of the time I spilled a Diet Coke into my keyboard.<sup>166</sup> In a trademark case involving the world-striding brand McDonald's, twenty percent of survey respondents associated *Mc* with negative concepts.<sup>167</sup> Multiple associations inevitably escape trademark owners' control. Nonetheless, reaffirmation effects might strengthen concerns about tarnishment if we believe that reminding consumers of a famous brand can also change the emotional resonance of the brand.

Sometimes new associations do not reinforce the original concept, but that's no help for the theories of blurring and tarnishment. Associations can be one-way: people prompted with the word *bone* often respond with *dog*, but the prompt *dog* never produces the response *bone*—perhaps because

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(S.D.N.Y. 1992) ("[T]he use of famous marks in parodies causes no loss of distinctiveness, since the success of the use depends upon the continued association of the mark with the plaintiff." (quoting Denicola, *supra*, at 188)).

164. See Brown, *supra* note 156, at 1038 ("[E]laboration' is a tool used to enhance memory by having the subject elaborate on, or build on, the information to be remembered. Elaboration can take different forms. 'Nonmeaningful elaboration,' such as generating rhymes for each word on a list to be memorized or even reading sentences upside-down, has been found to improve memory by requiring more elaborate processing from the subject." (footnote omitted) (quoting ANDERSON, *supra* note 46, at 167, 173)). Other studies show that a rhyme, such as *pick/tick*, can facilitate word recognition and distinction. See Sevald & Dell, *supra* note 47, at 110. Rhyming words also produce better performance on short-term-memory tasks compared to phonologically similar but nonrhyming words. See Anthony B. Fallon et al., *Phonological Similarity and Trace Degradation in the Serial Recall Task: When CAT Helps RAT, But Not MAN*, 34 INT'L J. PSYCHOL. 301, 301 (1999).

165. Brown, *supra* note 156, at 1038–39.

166. Clever proponents of dilution theories slide between the individual and the group when discussing brands as shortcuts that only work if their images remain consistent. A trademark can have a consistent meaning to one individual that differs from its consistent meaning to another. Easy examples come from brands popular with parents that are therefore unpopular with their children and from the rise of "my" brands like MySpace, which offer a personalized experience for each user.

167. See ROGER SHUY, LINGUISTIC BATTLES IN TRADEMARK DISPUTES 102–04 (2002) (describing the results of consumer surveys carried out by McDonald's for use at trial in *Quality Inns International, Inc. v. McDonald's Corp.*, 695 F. Supp. 198 (D. Md. 1988)).

*bone* is just very far down the list of terms associated with *dog*. Because the association is unidirectional, even people who have been primed with *bone* do not use it as a response to the cue *dog*.<sup>168</sup> If this result occurs with trademarks as well, Dogiva dog biscuits could routinely trigger an association with Godiva, but those who see a Godiva box would not think of dog biscuits. Blurring and even tarnishment would be avoided even though there would be free riding on the mark.

Priming and other association effects result from the fact that our information environment is always changing. What has gone before can always be revised by what comes next. If that were not so, dilution would not be a concern because later exposure to a dilutive use could never shake the hold of a famous mark. But by the same token, repeated exposure to Starbucks, which will occur whether or not a competing coffee store offers a “Charbucks” blend, can reinforce the original against any threat.<sup>169</sup> Indeed, in the dilution experiments, certain well-known brands resist dilution entirely even without reminder ads.<sup>170</sup> Fame may preserve the unidirectionality of

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168. See Zeelenberg et al., *supra* note 155, at 957.

169. See Hall, *supra* note 15, at 25 (“Many, possibly most, target audiences, including the heavy-category users who are critical to the success of most established brands, will be exposed to the advertising in a continuous loop between post-experience and pre-experience, depending on purchase cycles and personal behavior. . . . [T]he advertising will act both to organize memory of the last usage/purchase experience and to frame perception of the next experience.”). Although the Morrin and Jacoby study never exposed participants to ads for both the senior and junior user, it is notable that the Godiva ad increased response time and increased recognition accuracy by over 20% compared to the no-relevant-ad control, whereas Dogiva decreased accuracy by only 5%. Morrin & Jacoby, *supra* note 49, at 269 tbl.1. (For Heineken and Hyatt, exposure to reinforcing ads actually decreased accuracy compared to no exposure, but not by much. *Id.*)

170. See Morrin & Jacoby, *supra* note 49, at 272, 269, 272 (explaining that Hyatt did not appear to have been harmed by exposure to certain trademark-diluting advertisements and noting that “some brands, such as Continental Airlines, are so familiar to consumers . . . that recall of their original product category is largely immune to trademark dilution”); Peterson et al., *supra* note 54, at 266 (discussing the continued strength of Mead Data’s Lexis mark despite Toyota’s Lexus); Simonson, *supra* note 72, at 163 (explaining that the more dominant a brand is, the less easily consumers learn new associations); cf. Terence A. Shimp et al., *A Program of Classical Conditioning Experiments Testing Variations in the Conditioned Stimulus and Context*, 18 J. CONSUMER RES. 1, 9 (1991) (explaining that consumers’ attitudes towards high-equity brands are more resistant to change than their attitudes towards low-equity brands). Interestingly, Swann and others cannot agree on whether Hyatt resists dilution because it is so strong or because it is so weak. See Swann, *Dilution Redefined*, *supra* note 9, at 610 n.165 (“The explanation, I would submit, is that Hyatt is only modestly unique: it is a ‘personal name’ that the district court found to be in ‘reasonably common’ use, and may ‘already have too many meanings to resist one more.’” (quoting Swann, *supra* note 111, at 865)).

Another of Jacoby’s examples of dilution can also be read as an affirmation of strength. Jacoby did a dilution survey in *Pebble Beach Co. v. Tour 18 I, Ltd.*, 942 F. Supp. 1513, 1547 (S.D. Tex. 1996), *aff’d as modified*, 155 F.3d 526 (5th Cir. 1998), though it was ultimately decided on confusion grounds. He claimed to have found dilution because about three-fourths of people surveyed, all of whom had gone to Tour 18’s golf course, now thought that there were two different places to play a “Pebble Beach hole,” Pebble Beach and Tour 18’s hole mimicking the layout of a hole at Pebble Beach. Jacoby, *Psychological Foundations*, *supra* note 9, at 1058; Jacoby, *Dilution in Light*, *supra* note 9, at 32. Yet among those diluted respondents, 87% mentioned it as one of the five most famous golf courses in response to an open-ended question, and 99.6% ranked it in the top

associations from a junior brand to a senior by keeping the senior brand's own associations at the forefront of consumers' minds.<sup>171</sup> These results suggest that legal protection for strong marks is unnecessary.

Priming also makes it particularly unlikely that a glancing exposure to a dilutive mark will cause harm to the senior brand. If a consumer is not paying attention and does not process the mark, it will just be a subliminal reminder without generating new and inconsistent meanings.<sup>172</sup> If a consumer's attention is caught, however, we simply do not know how that will play out in any particular case—whether it will ultimately reinforce the original, as the Hyatt tattoo parlor reinforces Hyatt hotels, or dilute it. When the effect can be either positive or negative, it is a mistake to adopt as the theory of dilution an explanation that always posits a negative effect.

#### D. What About Tarnishment?

Most litigation over tarnishment in recent years has focused on referential uses that, rather than using the senior mark as a source identifier for the junior user's shoddy products or services, criticize or parody the senior user.<sup>173</sup> Many referential uses are excluded from the scope of the revised federal dilution law, which exempts parody and criticism,<sup>174</sup> with consequences discussed in the next Part. One might still hypothesize, nonetheless, that a junior use could harm the reputation of a senior mark through other types of negative association, as with the Tiffany's-strip-club example.<sup>175</sup> As noted in the previous subpart, research on priming contradicts blurring theory, but might suggest a mechanism for tarnishment.

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100 when specifically asked about it. *Id.* at 28. (The corresponding numbers for another plaintiff, Pinehurst #2, were 25% and 92%. *Id.*) Jacoby found blurring because Tour 18's customers think there are two places to play a "Pebble Beach hole," but the survey specifically asked them if they knew a place outside California that identifies its hole as a "Pebble Beach hole." Jacoby, *Psychological Foundations*, *supra* note 9, at 1057–58. In other words, the survey asked for retrieval of the junior use but showed no evidence of any effect on the senior user's brand.

171. See *infra* note 176 (discussing studies that demonstrate the robustness of brand concepts despite later-acquired negative information).

172. Even Jerre Swann, a great proponent of the cognitive theory, implicitly acknowledges this when he discusses the way that consumers in low-attention circumstances make broad recognition judgments so they don't have to waste time on specific processing. See Swann, *Interdisciplinary Approach*, *supra* note 9, at 962 (observing that consumers categorize brands based on a quick assessment of a few features in order to enhance efficiency in processing information, even if some details do not exactly match).

173. See, e.g., *N.Y. Stock Exch. v. N.Y., N.Y. Hotel, LLC*, 293 F.3d 550, 558 (2d Cir. 2002) (finding that a reasonable trier of fact could conclude that a casino's humorous use of a modified New York Stock Exchange mark would tarnish the Stock Exchange's reputation); *Hormel Foods Corp. v. Jim Henson Prods., Inc.*, 73 F.3d 497, 507–08 (2d Cir. 1996) (holding that a wild-boar character called Spa'am in a Muppet film was a parody that did not tarnish the Spam trademark); *Deere & Co. v. MTD Prods., Inc.*, 41 F.3d 39, 44–45 (2d Cir. 1994) (holding that a competitor's mocking animation of a small, frightened deer diluted the John Deere mark).

174. 15 U.S.C.A. § 1125(c)(3) (West Supp. 2007).

175. Cf. *Louis Vuitton Malletier S.A. v. Haute Diggity Dog, LLC*, 507 F.3d 252, 268–69 (4th Cir. 2007) (rejecting Louis Vuitton's claim that dog beds and toys using the mark "Chewy Vuiton"

There is very little empirical work in this area. Marketing researchers have, however, been extremely interested in a related question: when a strong existing brand introduces a new product extension that is bad or enters into a marketing alliance with a partner who turns out to have reputation problems, does that reflect poorly on the originally strong and popular core brand? In bad partnerships and failed brand extensions, the trademark owner may have carefully attempted to maintain brand quality, but consumers judged the attempt a failure.

That brand-extension research suggests that dilution by tarnishment through the use of a similar mark on a shoddy product is unlikely in the absence of source confusion because consumers have robust mental concepts of strong brands.<sup>176</sup> If consumers are given a reason to distinguish an authorized extension or cobranded product from the core brand—for example, a name like Courtyard by Marriott instead of Marriott or Coke BlaK instead of Coke—they will do so, and negative opinions about the extension will not return to harm opinions of the core brand.<sup>177</sup> If consumers

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caused tarnishment because there was no evidence that the products were likely to cause harm to Louis Vuitton's reputation).

176. See, e.g., Stephen J. Hoch, *Product Experience Is Seductive*, 29 J. CONSUMER RES. 448, 451 (2002) ("Using a simple associative learning procedure, [researchers] showed that, in a few trials, people learn brand associations that later block the learning of new predictive attribute associations."); Deborah Roedder John et al., *The Negative Impact of Extensions: Can Flagship Products Be Diluted?*, J. MARKETING, Jan. 1998, at 19, 20 ("[B]eliefs about the flagship product [of a strong brand] are 'encapsulated' and extremely resistant to change . . ."); *id.* at 27 (finding that even weakly held beliefs about flagship products resisted change because of the overall strength of the beliefs associated with the brand). (In John et al.'s research, however, some nonflagship products, such as minor Johnson & Johnson toiletries, were affected by spillover from bad product-line extensions. *Id.* at 24.) Sheff, a dilution proponent, invokes the robustness of initial impressions to argue that trademarks need dilution protection: "[O]nce a stimulus has been tagged with affective value, later contrary information about the stimulus's actual meaning or significance will often be insufficient to significantly alter the affective response." Sheff, *supra* note 9, at 361; see *id.* at 362 ("By altering the affect pool for a given trademark, uses that generate negative associations lessen the chance that consumers will choose products bearing that trademark."). But dilution is always a second comer, and so by this very logic, dilutive uses will always have significant difficulty displacing original responses.

177. See Amna Kirmani et al., *The Ownership Effect in Consumer Responses to Brand Line Stretches*, J. MARKETING, Jan. 1999, at 88, 99 (finding that signaling a difference between the main brand and the extension prevents dilutive effects on the main brand); Sandra J. Milberg et al., *Managing Negative Feedback Effects Associated with Brand Extensions: The Impact of Alternative Branding Strategies*, 6 J. CONSUMER PSYCHOL. 119, 136–37 (1997) (finding that subbranding may prevent negatively evaluated brand extensions from harming the parent brand); Sjödin & Törn, *supra* note 161, at 37 ("Even though consumers elaborate on brand image incongruity, they do not necessarily change their beliefs about the brand, since mature brands resist change. . . . If information has any impact on previous knowledge at all, it will typically be 'subtyped' and treated as an exception rather than cause a full revision of the previous knowledge."); Nicole L. Votolato & H. Rao Unnava, *Spillover of Negative Information on Brand Alliances*, 16 J. CONSUMER PSYCHOL. 196, 201 (2006) ("This research suggests that a host brand may generally be quite impervious to negative publicity surrounding its partner brand; the host brand was only affected when participants were led to believe that the host knew of and condoned the partner's behavior."); Judith H. Washburn et al., *Co-branding: Brand Equity and Trial Effects*, 17 J. CONSUMER MARKETING 591, 600 (2000) ("Our belief that a high equity brand would be denigrated by its pairing with a low

seize on such fine distinctions for authorized line extensions, it seems implausible that, absent confusion, they will transfer negative opinions between unrelated products or services.

In other words, recognizing an absence of affiliation should allow consumers to avoid penalizing the senior brand. One recent dilution proponent uses the brand-extension studies to support tarnishment theory in a way that makes this clear:

Consumer psychologists attribute . . . context-sensitive responses to the cognitive burdens of reconciling the associations a mark activates in memory with the novel experience of its extension. When encountered in a new context, the mark triggers a cognitive effort to “resolve and find meaning in the incongruity,” and the success of this effort generates a positive emotional response. Where the context is so far removed from that with which the mark is associated that *no resolution of the incongruity is possible*, the unsuccessful cognitive effort to find some resolution “typically stimulate[s] negative feelings of frustration and helplessness.”<sup>178</sup>

Because the brand extension studies were, by definition, premised on authorized extensions, they did not test the possibility that lack of confusion—the consumer’s recognition that a junior use is unauthorized—would resolve any incongruity (and possibly even increase positive associations with the brand, in a variant of the benefits of playfulness discussed above).

In the end, strong marks have little to fear from unauthorized tarnishment. As with the link between *dog* and *bone*, any associations with inferior junior users will remain unidirectional. Instead of a tree of associations, a better metaphor for mental models of strong brands might be a city with numerous one-way streets.

#### *E. Other Problems in Empirically Assessing Dilution*

Surveys that do not use MRIs will likely dominate trademark law for a while, if only because MRI studies are even more expensive than standard trademark surveys. But research on cognition, unfortunately, suggests that it is much harder to figure out what consumers think about brands through conventional surveys than practitioners believe.

Surveys in Lanham Act cases have long been criticized as products of “the survey researcher’s black arts.”<sup>179</sup> Slight differences in wording produce very different answers, and dueling surveys with contradictory results are common. Yet the problem with surveys is deeper than the difficulty of wording a question to avoid bias. The questions themselves may change a

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equity brand was not supported. It seems that the rich association set that accompanies a high equity brand may insulate it from a less favorable association.”)

178. Sheff, *supra* note 9, at 369 (footnotes omitted) (emphasis added).

179. *Indianapolis Colts, Inc. v. Metro. Balt. Football Club Ltd. P’ship*, 34 F.3d 410, 416 (7th Cir. 1994).

respondent's answers by changing the way she thinks.<sup>180</sup> Being asked to give reasons distorts reasoning, especially when the question has little meaning for the respondent (as the classic dilution question of whether consumers "associate" one thing with another probably does not). Once an idea has been brought to a respondent's attention, he often thinks it relevant: "[W]e come up with a plausible-sounding reason for why we might like or dislike something, and then we adjust our true preference to be in line with that plausible-sounding reason."<sup>181</sup> People are not very good at identifying their own reactions.<sup>182</sup> As a result, to force nonexperts to think deeply about reactions "is to render their reactions useless."<sup>183</sup>

Thus, when subjects in dilution surveys are told they are doing marketing research or given some other explanation that does not reveal the existence of the litigation, they are likely not just to behave differently but to think differently.<sup>184</sup> When surveys ask about whether and how a "Michelob Oily" ad affects a respondent's evaluation of Michelob, asking the question may ensure that it does.<sup>185</sup> The unexamined life may or may not be worth living; the unexamined brand evaluation is very different from the examined brand evaluation. Because dilution claims center on affect and association rather than on specific factual claims, dilution surveys are particularly vulnerable to such observation-induced distortions.

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180. See, e.g., GLADWELL, *supra* note 1, at 180–81 (stating that asking "why" questions distorts respondents' reactions, making their answers unreliable gauges for ordinary situations where much processing is consciously inaccessible (citing Timothy D. Wilson & Jonathan W. Schooler, *Thinking Too Much: Introspection Can Reduce the Quality of Preferences and Decisions*, 60 J. PERSONALITY & SOC. PSYCHOL. 181 (1991))); *id.* at 64–71 (stating that making people explain their choices produces divergence between previously expressed preferences and analyzed preferences); *cf. id.* at 119–20 (stating that conscious cognition decreases the accuracy of witness identification because words displace visual memory (citing Chad S. Dodson et al., *The Verbal Overshadowing Effect: Why Descriptions Impair Face Recognition*, 25 MEMORY & COGNITION 129 (1997) and Jonathan W. Schooler et al., *Thoughts Beyond Words: When Language Overshadows Insight*, 122 J. EXPERIMENTAL PSYCHOL.: GEN. 166 (1993))).

181. GLADWELL, *supra* note 1, at 181.

182. See *id.* at 155; ZALTMAN, *supra* note 14, at 9–11.

183. GLADWELL, *supra* note 1, at 186; *accord* Hall, *supra* note 15, at 30 ("[In tests of recall and tests of what messages were communicated by an ad,] respondents supply extensive information about their reactions to copy, but the scores are only relevant to the rational decision-making processes supplied by the brain's interpreter, not to the actual decision processes that drive target audience behavior.").

184. See, e.g., ZALTMAN, *supra* note 14, at 171 ("In one study, researchers discovered that consumers described their most recent experience at a bar differently depending on the reason they were given for being interviewed. The different reasons for asking them to share this experience constituted different goals as well as different stimuli.").

185. The problem may be more acute for dilution surveys than for confusion surveys because dilution surveys are more likely to ask about emotions and purchase intentions rather than about factual beliefs as to the association between two products or services. *Cf.* Vicki G. Morwitz & Gavan J. Fitzsimons, *The Mere-Measurement Effect: Why Does Measuring Intentions Change Actual Behavior?*, 14 J. CONSUMER PSYCHOL. 64, 64 (2004) (arguing that questions about intentions do not reveal preexisting intentions but instead often lead consumers to construct intentions that did not previously exist, affecting their subsequent attitudes and behaviors).



### F. Summary

Given the available evidence, the cognitive model of dilution lacks enough empirical support to justify its adoption as a general theory underlying dilution law. There is still too much we do not know about how consumers process marks in the marketplace. At a minimum, we cannot predict that any particular dilutive use will produce the difficulties posited by the cognitive model.

## V. Normative Implications

Suppose, however, that we set aside the evidence discussed in the previous Part and accept that the internal-search-costs model is completely correct. Consumers automatically respond to trademarks in predictable ways. Trademarks are strong enough to constitute product attributes in their own right and to induce purchases, but they are also fragile—capable of losing that selling power if other people promiscuously attach associations to them. Even so, the dilution law we have now would be incapable of fulfilling the protective function assigned to it, and we would not want a dilution law that actually gave trademark owners control over all unauthorized acts likely to affect consumers' perceptions of marks. The following subparts address why the psychological evidence undercuts, rather than bolsters, dilution law as we know it.

### A. Cognition, Commerce, and the First Amendment

The internal-search-costs model cannot explain why dilution should be limited to commercial uses or what the revised dilution law calls “use of a mark or trade name in commerce.”<sup>186</sup> As Laura Heymann puts it:

A dilution action essentially argues . . . ‘[W]e have spent a lot of money and effort on telling consumers what they should think about our brand, and the defendant’s activities have caused them to think something different.’ . . . The brand owner, in other words, is claiming a right to the exclusive mental association with the brand in the minds of the public.<sup>187</sup>

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186. 15 U.S.C.A. § 1125(c)(1) (West Supp. 2007). The revised law apparently governs only a defendant’s use of a trademark *as* a mark for its own goods or services. But even if it reaches more broadly, many uses of a mark—in casual conversation, in newspaper stories, and so on—will not be covered. For more on the use-of-a-mark versus use-as-a-mark debate, see Beebe, *supra* note 40, at 1144–45 and Graeme B. Dinwoodie & Mark D. Janis, *Dilution’s (Still) Uncertain Future*, 105 MICH. L. REV. FIRST IMPRESSIONS 98, 100–02 (2006), [http://www.michiganlawreview.org/first\\_impressions/vol105/dinwoodie.pdf](http://www.michiganlawreview.org/first_impressions/vol105/dinwoodie.pdf).

187. Laura A. Heymann, *Metabranding and Intermediation: A Response to Professor Fleischer*, 12 HARV. NEGOT. L. REV. 201, 218–19 (2007). In other words, dilution becomes a version of tortious interference with expected contractual relations, without the many limitations on that disfavored tort. See RESTATEMENT (SECOND) OF TORTS § 766C (1979) (providing no liability for negligent interference with contractual relations); *id.* § 767 (listing factors determining whether

Despite the breadth of this claim, dilution law does not attempt to regulate all activities that can change consumers' mental associations with trademarks. In fact, federal dilution law now grants a remedy only when a defendant uses a famous trademark to identify its own goods or services.<sup>188</sup> There are excellent reasons for this modesty, which exempts large amounts of noncommercial and commercial conduct, as explored in sections V(A)(1) and V(A)(2). Despite the limits on the scope of the law, the phenomenon the law calls dilution is everywhere. Dilution law targets the mote in the trademark owner's eye, not the beam in the consumer's. In section V(A)(3), I argue that such substantial underinclusiveness renders dilution law unconstitutional under the governing First Amendment standards for regulation of truthful noncommercial speech.

1. *The Larger Universe of Dilutive Uses.*—Unfortunately for trademark owners (though not for the rest of us), market conditions preclude trademark owners from controlling associations in the way the cognitive theory of dilution promises. To begin with, new neuroscience studies provide evidence for advertisers' long-held belief that much advertising is completely useless. In MRI studies, "a third to a half of commercials do not generate any brain reaction at all."<sup>189</sup> Not all attempts to appropriate consumers' mental real estate succeed; labor alone does not create neural value. Those commercials that do penetrate may entice, but they inherently trigger both positive and negative associations, as consumers' minds remind themselves that they can't buy everything that looks good.<sup>190</sup>

Even if a lone mark might colonize consumers' minds, marks are never alone. In the blooming, buzzing confusion of the modern marketplace, trademarks are constantly thrown at us, jostling shoulders in ways that ensure multiple associations, whether from the hundreds of marks visible side by side in Times Square or the dozens that obscure the uniforms and cars of

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intentional interference with contractual relations is improper); *id.* § 768 (setting forth legitimate acts of intentional interference with contractual relations to promote competition).

188. See Stacey L. Dogan & Mark A. Lemley, *The Trademark Use Requirement in Dilution Cases*, SANTA CLARA COMPUTER & HIGH TECH. L.J. (forthcoming), available at [http://www.scu.edu/law/tmdilution/File/Lemley\\_Dogan\\_The\\_Trademark\\_Use\\_Requirement\\_in\\_Dilution\\_Cases\\_draft.pdf](http://www.scu.edu/law/tmdilution/File/Lemley_Dogan_The_Trademark_Use_Requirement_in_Dilution_Cases_draft.pdf) (discussing the new "use as a mark" requirements in federal dilution law).

189. Kenneth Chang, *Enlisting Science's Lessons to Entice More Shoppers to Spend More*, N.Y. TIMES, Sept. 19, 2006, at F3.

190. As Kenneth Chang reported:

In commercials that did spur brain activity, reactions appeared to be in conflict, Dr. Freedman [a clinical professor of psychiatry at U.C.L.A.] said. "Almost always, if you activated one part of the brain," he said, "you activated many competing parts of the brain." For example, an appealing car commercial might activate not only . . . the parts of the brain that shout, "Wow, I want that car now!" but also the amygdala, the part of the brain associated with fear and anxiety, perhaps warning, "That would be a stupid impulsive thing to do."

*Id.*

NASCAR drivers.<sup>191</sup> And this affects brand evaluations: one study found that the cognitive processing consumers engage in *before* turning to a brand significantly affects recognition of and liking for that brand.<sup>192</sup> Physical proximity of other brands alone is enough to affect judgment.<sup>193</sup>

The same relentless pressure of advertising that supposedly requires legal protection for the ability of a unique mark to cut through ad clutter itself drowns marks in multiple uncontrollable contexts. Trademark owners create authorized MySpace pages for characters and products to take advantage of a new marketing channel, and consumers then associate them with dozens of other non-owner-approved “friends.”<sup>194</sup> Some consumers even appropriate the official versions to advertise themselves.<sup>195</sup> These juxtapositions create mental associations, and thus the cognitive model predicts that they dilute. Legitimate branded products appear in discount stores because of resales or transfers in the retail chain, and mere presence in a low-prestige store can affect brand perceptions.<sup>196</sup> In fact, if we care about associations as the cognitive theory requires, competition itself dilutes—the simple presence of a competing product interferes with retrieval of other brands.<sup>197</sup>

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191. One might argue that trademark owners can control side-by-side exposures through contract. But in most cases, they lack the ability to do so. A McDonald’s might discover that the Gap next door lost its lease and is now a Hooters. Eric Goldman has written about the pervasive constraints faced by most manufacturers, giving retailers substantial control over how a particular brand will be categorized and displayed to consumers. See Eric Goldman, *Brand Spillovers* (Aug. 3, 2006) (unpublished manuscript), available at <http://www.law.berkeley.edu/institutes/bclt/ipsc/papers2/goldman.pdf>.

192. See Antonia Kronlund & Daniel M. Bernstein, *Unscrambling Words Increases Brand Name Recognition and Preference*, 20 *APPLIED COGNITIVE PSYCHOL.* 681, 684 (2006) (“These results introduce the possibility that the actual brand of water [a thirsty shopper looks at] matters less than the decision-making processes that came immediately *before* seeing the bottled water. In a shopping context, this may involve processing of *other* brands (e.g. of a candy bar), although it may also involve the processing of ordinary words (e.g. on a store display or magazine cover).”).

193. See Irwin P. Levin & Aron M. Levin, *Modeling the Role of Brand Alliances in the Assimilation of Product Evaluations*, 9 *J. CONSUMER PSYCHOL.* 43, 47–49 (2000) (finding that mere physical proximity of restaurants led to attitude transfer between them among research subjects, though less than when the restaurants were explicitly cobranded). *But see supra* notes 176–77 and accompanying text (noting that absent confusion or good reason, consumers resist punishing strong brands for negative associations).

194. See Elizabeth Holmes, *On MySpace, Millions of Users Make “Friends” with Ads*, *WALL ST. J.*, Aug. 7, 2006, at B1 (discussing MySpace pages created by marketers for movie characters, mascots, and products).

195. See, e.g., *id.* (reporting that a MySpace patron used the profile picture of “Ricky Bobby” as his own picture in an effort to promote his disc-jockeying business).

196. See Kyoungmi Lee & Sharon Shavitt, *The Use of Cues Depends on Goals: Store Reputation Affects Product Judgments when Social Identity Goals Are Salient*, 16 *J. CONSUMER PSYCHOL.* 260, 268 (2006) (finding that when people are thinking about their self-concepts, store reputation affects evaluation of the brands the store carries, and this effect is spontaneously self-generated for items tied to self-concept, such as watches or clothing); cf. Heymann, *supra* note 187, at 220–21 (discussing how intermediaries, such as reporters, can distort brand messages).

197. See Frank R. Kardes et al., *Construal-Level Effects on Preference Stability, Preference-Behavior Correspondence, and the Suppression of Competing Brands*, 16 *J. CONSUMER PSYCHOL.* 135, 137 (2006) (finding that the presence of a brand makes it more salient, inhibiting the activation

Noncommercial uses should also dilute according to the cognitive model, although noncommercial uses are excluded from the coverage of dilution law. Tiffany is currently a well-recognized name for a girl. The existence of girls named Tiffany and the ability of people to say “I’m going to hang out at Tiffany’s” should therefore interfere with immediate recognition of the mark. The problem is not limited to trademarks with widely recognized nontrademark meanings because parents now routinely use trademarks as inspiration for children’s names, just as previous generations turned to virtues or to inspiring people. In 2005, more than 500 infants were named Armani; more than 260 girls were named Chanel; and Dodge, Polo, and Camry all made double digits.<sup>198</sup> As far as we know, the brain has no use-in-commerce requirement or other distinction that would keep references to Tiffany-the-girl from activating thoughts of Tiffany’s-the-jeweler, or vice versa. It is likely that the contexts of shopping versus friendship help us distinguish the two—but that is simply to restate the objection that even identical terms are not dilutive when put in context.

All sorts of people have opinions about products and marks, and those opinions promiscuously create associations. Yochai Benkler’s discussion of Google’s search engine results for the term *Barbie* illustrates both blurring and tarnishment from noncommercial uses. The top results from his Google search, in order, were: Mattel’s official site; the official collectors’ site;

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of mental images of other brands); *id.* at 140–42 (finding that cuing with candy bars—Lindt, Ghiradelli, and Cadbury—inhibited recognition of Snickers, Butterfinger, Three Musketeers, etc. as candy bars); Krishnan & Chakravarti, *supra* note 155, at 13 (finding that competitive ads interfere with recall and recognition); Noel, *supra* note 154, at 306–07 (finding that competing ads for products of the same type decrease memory for any one brand). General explanations of the harm of dilution—the junior use can decrease awareness of the senior brand, can make the senior brand’s associations less favorable, and can make the senior brand’s associations shared rather than unique—make quite clear that the source of harm is often competition or some other change in the marketplace, rather than a trademark-specific phenomenon. See Steckel et al., *supra* note 157, at 625 (“Suppose that a competitor to VOLVO introduced and heavily promoted a new model called ‘Super Safe’ and succeeded in displacing Volvo as the perceived safety leader. . . . [T]he brand and the power of the VOLVO trademark would be damaged, but not because of the use of the same or similar name or logo. One could possibly say that the trademark has been metaphorically diluted, but there is no trademark dilution in a legal sense.”); Swann, *Dilution Redefined*, *supra* note 9, at 620 (“A form of dilution does occur, of course, when PEPSI, for example, brings COKE to mind. To those to whom COKE means cola (and cola means COKE), the introduction of PEPSI causes a measure of product category dilution—COKE no longer is the sole cola schema in the consumer’s mind. . . . Only association that is substantially brand triggered counts in a dilution calculus . . . .” (citation omitted)).

198. Kortney Stringer, *Brand-Named Babies: Parents Seek to Be Different—Or Just Make Money*, DETROIT FREE PRESS, June 12, 2006, § Business, at 1E. In 2000, names given to five or more children in the United States included Armani, Aviance, Breck, Camry, Canon, Cartier, Catera, Celica, Chanel, Chevy, Coty, Dannon, Darvon, Delmonte, Dior, Disney, Dodge, Evian, Guinness, Halston, Hyatt, Ikea, Infiniti, Jantzen, Jetta, Josten, Lcxus, Loreal, Ronrico, Ruger, Saran, Skyy, and Timberland. See Cleveland Kent Evans, *Brand Names as Baby Names* (unpublished manuscript, on file with the Texas Law Review). A few children have been named Espn, for the sports network. See Stringer, *supra*. Parents have also auctioned off both temporary and permanent naming rights for their children; in the lead is Golden-Palace.com, with at least three children. See *id.*

AdiosBarbie.com (critical of Barbie); a Barbie-collectible magazine; a quiz, *If You Were a Barbie, Which Messed Up Version Would You Be?*; the Visible Barbie Project (Barbies sliced through as if vivisected); *Barbie: The Image of Us All* (undergraduate paper on the cultural history of Barbie); a Barbie and Ken sex animation; a Barbie dressed as a suicide bomber; and Barbies dressed and painted as countercultural images.<sup>199</sup> As Benkler explains:

The little girl who searches for Barbie on Google will encounter a culturally contested figure. . . . [I]n an environment where relevance is measured in non-market action—placing a link to a Web site because you deem it relevant to whatever you are doing with your Web site—as opposed to in dollars, Barbie has become a more transparent cultural object. It is easier for the little girl to see that the doll is not only a toy, not only a symbol of beauty and glamour, but also a symbol of how norms of female beauty in our society can be oppressive to women and girls. . . . [The search results show] that Barbie can have multiple meanings . . . .<sup>200</sup>

The Internet makes these multiple meanings easier to see alongside the official story, but its effects are far from unique. Trademark owners wince when the “wrong” sorts of people use their products, changing them from upmarket to low class.<sup>201</sup> Consider also the multiple uses in news reporting and other noncommercial speech of the suffix *Mc* to indicate convenience, cheapness, uniformity, and other qualities associated with McDonald’s—

199. YOCHAI BENKLER, *THE WEALTH OF NETWORKS* 286 tbl.8.1 (2006); see also *Mattel, Inc. v. MCA Records, Inc.*, 296 F.3d 894, 903–04 (9th Cir. 2002) (“MCA’s use of the [Barbie] mark [for the song title *Barbie Girl!*] is dilutive. . . . [A]fter the song’s popular success, some consumers hearing Barbie’s name will think of both the doll and the song, or perhaps of the song only. This is a classic blurring injury . . . .” (footnote omitted)); Simonson, *supra* note 87, at 26 (explaining that parodies are a type of dilution “in which the new brand name or its product category creates an additional association between the original brand and some unwanted perception”).

200. BENKLER, *supra* note 199, at 287; see also Julie Bosman, *Agencies Are Watching as Ads Go Online*, N.Y. TIMES, Aug. 15, 2006, at C6 (discussing spoof ads that attack products or offer inconsistent meanings for the brand and quoting a creative director who describes such spoofs as “brand terrorism,” while acknowledging that companies can do little to control them); Micro Persuasion, Study: Wikipedia Dominates Brand Search Results, [http://www.micropersuasion.com/2006/09/study\\_wikipedia.html](http://www.micropersuasion.com/2006/09/study_wikipedia.html) (Sept. 11, 2006, 14:23) (observing that Wikipedia entries on brands often appear in the first ten search results on Google and that the entries often contain negative information, and noting that unique trademarks are likely to have highly ranked Wikipedia entries).

201. See, e.g., Kathryn Bold, *Fashion Flares: Back-to-School Shopping Comes with Warning Signals*, L.A. TIMES, Aug. 18, 1994, at E1 (discussing how sports-team logos have been appropriated by gangs); Clare Coulson, *You’ve Been WAGGED!*, TELEGRAPH, Aug. 9, 2006, <http://www.telegraph.co.uk/fashion/main.jhtml?xml=/fashion/2006/08/09/efwag09.xml&sSheet=/fashion/2006/08/09/ixfashion.html> (discussing how designers are “fighting to protect their brands from being endorsed by the ‘wrong’ sort of celebrity”). Some brands have struggled with an “urban”—that is, African-American—image, which reworks the meaning of the brand. Timberland, for example, initially resisted the brand’s appropriation by young African-Americans because the company feared that would drive away other purchasers. See Dan Glaister, *A Kick Up the Nineties*, GUARDIAN, Apr. 28, 1994, at 15 (discussing controversial comments about urban consumers by Timberland’s chief operating officer); see also Douglas Century, *Jay-Z Puts a Cap on Cristal*, N.Y. TIMES, July 2, 2006, § 9, at 1 (discussing the rapper’s response to comments by Cristal’s president suggesting that an association with rap could hurt the brand). But the law creates no recourse.

McJob, McPaper, McArt, McLawyers.<sup>202</sup> Even if McDonald's can enjoin McSleep Inns,<sup>203</sup> the pervasive communicative uses of *Mc* as shorthand for a set of qualities keeps the mark's meanings from being locked down.<sup>204</sup>

Setting aside the widespread unauthorized use of brands as sources of meaning, unauthorized uses of marks directly tied to their core function of product or service identification abound and dilute, creating associations that conflict with the trademark owner's preferred image. Peer groups and groups we admire have powerful effects on our mental models of brands.<sup>205</sup> Word of mouth is more powerful than advertising in selling—or killing—products.<sup>206</sup> Reviews affect perceptions of quality.<sup>207</sup> It is possible to convince people that they liked a product that they specifically said they disliked by showing them positive reviews (or vice versa, turning positive opinions

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202. See, e.g., Cathleen McGuigan, *The McMansion Next Door*, NEWSWEEK, Oct. 27, 1993, at 85 (describing McMansions as architecturally undistinguished, mass produced, and relatively inexpensive); see also *supra* note 167 and accompanying text.

203. See *Quality Inns Int'l, Inc. v. McDonald's Corp.*, 695 F. Supp. 198, 221–22 (D. Md. 1988).

204. See Shuy, *supra* note 107, at 4–5 (discussing the *Quality Inns* case). Consider also the common phrase “a few fries short of a Happy Meal.”

205. See ALEX WIPPERFÜRTH, BRAND HIJACK: MARKETING WITHOUT MARKETING 132 (2005) (“Studies show that social groups influence 80 percent of all purchases.”); Austin, *supra* note 9, at 902 (“Some research into the sources of consumer desires suggests that among the most powerful stimulators of desire to purchase goods are the goods friends and family have already purchased.”); Terry L. Childers & Akshay R. Rao, *The Influence of Familial and Peer-Based Reference Groups on Consumer Decisions*, 19 J. CONSUMER RES. 198, 206–08 (1992) (finding significant influence on brand choice); Jennifer Edson Escalas & James R. Bettman, *You Are What They Eat: The Influence of Reference Groups on Consumers' Connections to Brands*, 13 J. CONSUMER PSYCHOL. 339, 339 (2003) (finding that consumers value brands based on the brands' perceived relationships to groups to which consumers belong or to which they aspire).

206. See Rajdeep Grewal et al., *Early-Entrant Advantage, Word-of-Mouth Communication, Brand Similarity, and the Consumer Decision-Making Process*, 13 J. CONSUMER PSYCHOL. 187, 188 (2003) (“[Word of mouth] significantly influences product evaluations and purchase decisions. In fact, [it] has been shown to be more powerful than printed information primarily because [word of mouth] information is considered to be more credible.” (citations omitted)); Russell N. Laczniak et al., *Consumers' Responses to Negative Word-of-Mouth Communication: An Attribution Theory Perspective*, 11 J. CONSUMER PSYCHOL. 57, 57–58 (2001) (reviewing the research consensus on the powerful influence of word of mouth, including research showing that negative word of mouth is more harmful than positive word of mouth is helpful); Robert E. Smith & Christine A. Vogt, *The Effects of Integrating Advertising and Negative Word-of-Mouth Communications on Message Processing and Response*, 4 J. CONSUMER PSYCHOL. 133, 145–46 (1995) (finding that ads increase the credibility of negative word of mouth by triggering skepticism).

207. See, e.g., JENKINS, *supra* note 160, at 80 (discussing group tastemaking in online communities); Eric Goldman, *Online Word of Mouth and Its Implications for Trademark Law*, in TRADEMARK LAW AND THEORY: A HANDBOOK OF CONTEMPORARY RESEARCH (Graeme B. Dinwoodie & Mark D. Janis eds., forthcoming 2008) (stating that reviews and word of mouth affect consumer perceptions and that these effects are vastly multiplied on the Internet); Chris Gaither, *Where Everyone Is a Critic*, L.A. TIMES, Aug. 25, 2006, at A1 (discussing a consumer review Web site with a powerful effect on businesses); Bob Tedeschi, *Help for the Merchant in Navigating a Sea of Shopper Opinions*, N.Y. TIMES, Sept. 4, 2006, at C5 (“Scores of Internet merchants have recently begun following Amazon's lead by posting customer reviews—both flattering and flaming—of products they sell . . . . [C]onsumers will trust the voice of another customer before they trust the retailer or manufacturer.” (quoting a Petco executive)).

negative). Not only will their evaluations become more positive, but they will insist that their initial opinions were also positive.<sup>208</sup> If that's so, then dilution law should be especially concerned about negative reviews, and yet such reviews are exempt. General news reporting, which also falls outside the scope of dilution law, can have the same dilutive effects as word of mouth. When ABC publicized apparently unsanitary practices at the grocery chain Food Lion, for example, the company's brand equity was devastated.<sup>209</sup>

This evidence illustrates that noncovered dilutive uses are common and also that consumers process trademarks in noncommercial settings, from news reporting to casual conversation, in ways that affect their perceptions of the mark in commercial settings.<sup>210</sup> There certainly are differences in how people process information depending on context, as our general attempts to ignore most advertising illustrate. But when we pay attention, we do not segregate our mental models of trademarks depending on whether the source of information was commercial or noncommercial, or on whether the source used a trademark as an identifier of its own goods or services.

In sum, the set of commercial uses subject to dilution regulation is small compared to the set of uses that are noncommercial, expressive, or otherwise nonactionable and that according to the cognitive model, must also dilute.

2. *The Exception for Comparative Advertising.*—U.S. law gives substantially greater protection to advertising that makes specific reference to a competitor than does the law of many other countries.<sup>211</sup> This is a deliberate choice, reflected in federal dilution law's explicit exception for comparative advertising.<sup>212</sup> But what is comparative advertising for? It gets a consumer's attention and creates an association between the two competing products. If we take the cognitive-processing model of dilution seriously, this should constitute a most insidious kind of dilution because it takes some milliseconds for a consumer to realize that this is a comparative ad, necessarily creating an association between the trademark owner and its

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208. See, e.g., ZALTMAN, *supra* note 14, at 190 (discussing a study of the effects of movie reviews); see also *id.* at 12–13, 166–67, 180–81 (describing how exposure to others' evaluations changes consumers' memories of their own experiences with products or services). The malleability of memory extends beyond advertising-induced change. See *supra* note 25 and accompanying text.

209. See, e.g., Thomas McArdle, *ABC's Food Lyin'*, NAT'L REV., Feb. 10, 1997, at 42, 42 (noting that after the television report on unsanitary practices at Food Lion, the company's stock "crumbled, and earnings reached twenty-year lows").

210. See Sheff, *supra* note 9, at 360 (“[D]rinking a cold beverage on a hot day, getting a product recall notice, seeing an aesthetically pleasing advertisement, or reading a news report that a household product contains a potent carcinogen are all experiences that would modify the affect pool for the products and trademarks involved and would accordingly make a consumer more or less likely to choose products bearing the implicated trademarks.” (footnote omitted)).

211. See, e.g., Charlotte J. Romano, *Comparative Advertising in the United States and in France*, 25 NW. J. INT'L L. & BUS. 371, 377–80 (2005).

212. 15 U.S.C.A. § 1125(c)(3)(A)(i) (West Supp. 2007).

competitor. No matter what happens next, the consumer's web of associations with the trademark were activated and then tied to the competitor's ad.

One could even easily interpret the milliseconds of (mis)recognition as "initial interest confusion." That doctrine originally assumed that consumers took some action as the result of initial interest, such as entering a store, but has expanded to dilution-like contours under the pressure of Internet litigation.<sup>213</sup> A recent case, *SMJ Group, Inc. v. 417 Lafayette Restaurant LLC*,<sup>214</sup> suggests that any use of a mark creates initial interest confusion. The defendant, a nonprofit organization for restaurant workers' rights, created a pamphlet protesting the plaintiff's employment practices.<sup>215</sup> The pamphlet had the plaintiff's logo on the front.<sup>216</sup> The plaintiff sued for trademark infringement, and the court found a likelihood of initial interest confusion because the logo would create an association with the restaurant at first glance, even though that initial confusion would immediately dissipate.<sup>217</sup> Comparative advertising works similarly.

There is no push among trademark owners to eliminate the comparative-advertising exception for dilution, presumably because they realize that they will often prefer comparative advertising themselves. Nor are many courts likely to suppress many anticorporate protests as trademark infringement. Even the court in *SMJ* ultimately denied an injunction on the ground that the defendants' protest message didn't cause the type of irreparable harm trademark law targets.<sup>218</sup> But the comparative-advertising exception, and the related exception for "nominative" uses that identify a trademark in order to talk about the products or services it represents, suggests that there is something very wrong with the attention/association model of dilution.<sup>219</sup> Like the noncommercial-use exception, the comparative-advertising exception and the nominative-fair-use doctrine demonstrate that numerous other considerations routinely outweigh the supposed harms of dilution.

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213. See, e.g., *N.Y. State Soc'y of Certified Pub. Accountants v. Eric Louis Assocs., Inc.*, 79 F. Supp. 2d 331, 342 (S.D.N.Y. 1999) (holding that the defendant's use of another organization's trademark created initial interest confusion and also violated the trademark dilution provisions of the FTDA).

214. 439 F. Supp. 2d 281 (S.D.N.Y. 2006).

215. *Id.* at 285.

216. *Id.*

217. *Id.* at 288.

218. See *id.* at 295 (distinguishing harmful customer diversion from legitimate substantive criticism for purposes of assessing irreparable harm).

219. Sheff's discussion of why truthful uses of another's mark should be prohibited, for example, purports to accept comparative advertising but in fact gives reasons why comparative advertising should be banned. See Sheff, *supra* note 9, at 385 ("Allowing second comers to use existing marks where such uses provide accurate information about the second comer's product would obviously invite abuse and gamesmanship, and distinguishing between helpful and misleading uses would be a costly endeavor.").



3. *First Amendment Implications of the Empirical Failure of the Ownership Claim.*—Free-speech concerns animated many of the formal exceptions to the federal dilution law. Given how little is left for dilution once noncommercial uses, parody, criticism, comparative advertising, and so on are largely exempted, one might argue that the remaining prohibitions are simply not very significant, at least if trademark owners don't overclaim their rights in ways that deter protected conduct. Current dilution law targets dilution that while likely not as harmful as trademark owners think, is also not particularly beneficial for society. After all, what good does the existence of Buick aspirin do for anyone?

I am not sanguine that the exceptions will prove as robust as they should.<sup>220</sup> If a court truly believes the search-cost theory, it will see harm from many parodic and critical uses, and where there is harm there is an impulse to grant a remedy. In such cases, it will often be possible to say that the parodist or critic is using the mark at issue as a mark for its own goods or services, meaning that the exemptions will not apply.<sup>221</sup> In one ongoing case, for example, Wal-Mart is litigating against a critic who produced T-shirts displaying the term "WAL\*OCAUST" and a graphic combining a Nazi eagle with a Wal-Mart smiley face.<sup>222</sup> Given that T-shirts often display trademarks, it would be relatively easy to decide that these T-shirts fall within the scope of the revised law and tarnish the Wal-Mart trademark.

Even if courts interpret the exceptions expansively, there are still First Amendment objections to the few uses that will be covered by dilution law—nondeceptive uses of famous marks to identify unrelated products. Others have begun to address how the commercial-speech doctrine should apply to dilution law, arguing that dilution protection does not serve a significant government interest and otherwise fails the Supreme Court's test for

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220. Doctrines counseling caution in suppressing referential uses like parody can prove precarious; not all courts are particularly solicitous of parodists, who can seem like they're just mocking for the sake of mockery, or even of comparative advertisers, who often seem to be free riding on major brands' investments. *See, e.g.,* *People for the Ethical Treatment of Animals v. Doughney*, 263 F.3d 359, 367 (4th Cir. 2001) (finding that the "People Eating Tasty Animals" parody Web site infringed plaintiff's trademark); *Anheuser-Busch, Inc. v. Balducci Publ'ns*, 28 F.3d 769, 777 (8th Cir. 1994) (finding "Michelob Oily" parody to be infringing); *McNeil-PPC, Inc. v. Guardian Drug Co.*, 984 F. Supp. 1066, 1074 (E.D. Mich. 1997) (finding that the defendant's similar trade dress with a "compare to" message on generic products infringed plaintiff's trade dress for a lactose-intolerance aid).

221. *See* 15 U.S.C.A. § 1125(c)(3)(A) (West Supp. 2007) (excluding from dilution liability the fair use of a trademark in connection with comparative advertising, criticism, or parody, other than as a designation of source for that person's own goods or services).

222. *See* Complaint for Declaratory Relief, *Smith v. Wal-Mart Stores, Inc.*, 475 F. Supp. 2d 1318 (N.D. Ga. 2007) (No. 1:06-cv-526-TCB), 2006 WL 849988, available at [http://www.citizen.org/documents/Complaint\\_and\\_exhibit.pdf](http://www.citizen.org/documents/Complaint_and_exhibit.pdf) (seeking a declaratory judgment that the products do not violate trademark laws and that the First Amendment forbids application of such laws to the products); Press Release, Public Citizen, Wal-Mart Critic Has First Amendment Right to Sell 'Walocaust' Items, Maintain Web Site Critical of Retail Giant, Public Citizen Tells Court (Mar. 7, 2006), available at <http://www.citizen.org/pressroom/release.cfm?ID=2148> (reviewing the suit against Wal-Mart and related background facts).

regulations of truthful commercial speech.<sup>223</sup> By contrast, Stacey Dogan and Mark Lemley suggest that the search-costs model of dilution, by identifying harm to consumers, bolsters dilution against the numerous First Amendment attacks to which it has been subjected.<sup>224</sup>

If the cognitive model is correct, consumer protection could provide a government interest strong enough to pass the Supreme Court's scrutiny.<sup>225</sup> But there are other requirements for constitutional commercial-speech regulations, specifically the extent to which a regulation properly targets the identified harm. The enormous disconnect between the cognitive-processing explanations of dilution and the scope of dilution law offers a simple

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223. See, e.g., Mary LaFrance, *No Reason to Live: Dilution Laws as Unconstitutional Restrictions on Commercial Speech*, 58 S.C. L. REV. 709 (2007) (suggesting that any harm caused by dilution does not affect the public interest and that dilution laws violate the First Amendment by constraining commercial speech without promoting a substantial government interest).

224. See Dogan & Lemley, *Right of Publicity*, *supra* note 54, at 1218 n.269 ("One benefit of understanding dilution law as we have explained it elsewhere—as directed at reducing consumer search costs—is that our approach may reduce the tension between dilution law and the First Amendment." (citing Stacey L. Dogan & Mark A. Lemley, *The Merchandising Right: Fragile Theory or Fait Accompli?*, 54 EMORY L.J. 461 (2005))); see also Brian A. Jacobs, Note, *Trademark Dilution on the Constitutional Edge*, 104 COLUM. L. REV. 161, 202 (2004) (arguing that treating dilution as based on search costs and efficiency considerations satisfies the substantial interest and tailoring requirements of the commercial-speech doctrine). First Amendment criticisms of dilution law abound, though none of them have yet addressed the search-costs argument. E.g., Ann Bartow, *Likelihood of Confusion*, 41 SAN DIEGO L. REV. 721, 796–817 (2004); Denicola, *supra* note 163; Pratheepan Gulasekaram, *Policing the Border Between Trademarks and Free Speech: Protecting Unauthorized Trademark Use in Expressive Works*, 80 WASH. L. REV. 887 (2005); Robert N. Kravitz, *Trademarks, Speech, and the Gay Olympics Case*, 69 B.U. L. REV. 131 (1989).

225. LaFrance disagrees that dilution could serve a substantial government interest. See LaFrance, *supra* note 223, at 716 ("[T]he supposed harms that dilution laws prevent or remedy are either nonexistent, insubstantial, or relevant only to the ability of businesses to derive profits from consumers without bestowing any commensurate public benefits such as lower prices, better products, greater product choices, or better information to assist consumers in making their choices."); *id.* at 719 ("[A]ny harm to the value of the trademarks affected by dilutive speech interferes only with the ability of the trademark owners to psychologically manipulate consumers. Preserving the ability of trademark owners to influence consumers in this way does not amount to a substantial governmental interest."). I think LaFrance is overly optimistic about the constraints the "substantial interest" prong of the commercial-speech test imposes on government. Almost anything can be a "substantial interest." See, e.g., *Bd. of Trs. of the State Univ. of N.Y. v. Fox*, 492 U.S. 469, 475 (1989) (holding that "promoting an educational rather than commercial atmosphere on SUNY's campuses, promoting safety and security, preventing commercial exploitation of students, and preserving residential tranquility" were all substantial government interests for commercial-speech purposes); *Ward v. Rock Against Racism*, 491 U.S. 781, 796–97 (1989) (holding that controlling noise levels in a public park was a substantial government interest). In the post-New Deal era, the fact that a regulation benefits only one set of private interests is no barrier to upholding it. The only time that an asserted interest is not "substantial" is when the loopholes contained in the challenged regulation make it clear that the government doesn't really want to promote that interest; as a result, this prong of the test is in practice hostage to whether the regulation has a reasonable fit to the interest. See, e.g., *FCC v. League of Women Voters of Cal.*, 468 U.S. 364, 385 n.16 (1984) (noting that significant underinclusiveness made a regulation "unrelated" to the asserted purpose, suggesting that the government's interest was not substantial); *Buckley v. Valeo*, 424 U.S. 1, 45 (1976) (finding no "substantial societal interest" was furthered by a regulation with enormous loopholes).

analogy: *City of Cincinnati v. Discovery Network, Inc.*<sup>226</sup> In that case, the Supreme Court ruled that the city could not target commercial speech by banning news racks containing commercial handbills but permitting news racks containing traditional newspapers.<sup>227</sup> The city's rationale was that news racks interfered with the safety and beauty of the public streets.<sup>228</sup> While the city conceded that it could not ban news racks containing fully protected speech like that of the *New York Times*, it argued that it could ban commercial speech, which is less valuable.<sup>229</sup>

The problem with the city's argument was that the nature of the speech conveyed by the news racks, commercial or not, had nothing to do with their effects on safety and aesthetics. There were 62 commercial news racks that the city wished removed, but between 1,500 and 2,000 news racks selling conventional newspapers would remain.<sup>230</sup> This complete absence of fit between the harm and the targeted speech invalidated the law.<sup>231</sup>

The similarities between *Discovery Network* and dilution law, understood as a measure against mental clutter, indicate that dilution also irrationally targets commercial speech for a harm done by a much larger set of speech acts.<sup>232</sup> Unlike infringing uses of trademarks, diluting uses are not deceptive or misleading.<sup>233</sup> A dilutive use harms the value of a trademark the way litter harms a street, polluting its once-clean message. Noncommercial dilution, because it is so much more common, is much more likely to cause such pollution than Buick-aspirin-type commercial dilution. Multiple, large-scale commercial imitations are simply unlikely to materialize and certainly much less likely than pervasive noncommercial references like the Barbie commentaries and children's names discussed above.<sup>234</sup>

226. 507 U.S. 410 (1993).

227. *Id.* at 428.

228. *Id.* at 412.

229. *Id.* at 415.

230. *Id.* at 417-18.

231. *Id.*; see also *Café Erotica of Fla., Inc. v. St. Johns County*, 360 F.3d 1274, 1291 (11th Cir. 2004) (holding that safety and aesthetics were "not truly furthered" by an ordinance that restricted the size of political signs while allowing commercial signs to be much larger).

232. Eugene Volokh has drawn on *Discovery Network* to argue that the FTDA's exclusion of noncommercial speech is content based, but to my knowledge no one has yet made this direct analogy. See Eugene Volokh, *Freedom of Speech and Intellectual Property: Some Thoughts After Eldred*, 44 *Liquormart, and Bartnicki*, 40 *HOUS. L. REV.* 697, 707-08 (2003).

233. See Kathleen M. Sullivan, *Cheap Spirits, Cigarettes, and Free Speech: The Implications of 44 Liquormart*, 1996 *SUP. CT. REV.* 123, 157 ("[M]ost of what Madison Avenue sells is product image. Even under the existing notion that the government has broad leeway to control misleading commercial speech, it is not generally claimed that such imagistic associations are deceptive.").

234. As J. Thomas McCarthy has noted:

[T]he theory of dilution by blurring assumes that if one small user can blur the sharp focus of the famous mark to uniquely signify one source, then another and another small user can and will do so. Like being stung by a hundred bees, significant injury is caused by the cumulative effect, not by just one. . . . Many of us have been stung by one bee and no more stings immediately followed. . . . Why should courts assume

*Discovery Network* indicates that the First Amendment bars substantial underinclusiveness when that underinclusiveness makes the regulation ineffective at solving the targeted problem.<sup>235</sup> Here, the First Amendment prevents Congress from doing the equivalent of taking a thimbleful of water out of an overflowing bathtub. Even if the thimbleful hasn't been shown to be valuable in itself,<sup>236</sup> removing it isn't a realistic response to the identified harm. The Supreme Court now requires evidence that regulations of truthful commercial speech are likely to have a real effect on the problem targeted by the legislature<sup>237</sup>—for dilution, by hypothesis, increased mental search costs. A limited dilution law simply can't do so.

One response to a *Discovery Network*-type First Amendment challenge could be to identify the harm of dilution as that caused by free riding. Not the mental effects but the commercial advantage to the junior user justifies distinguishing commercial diluting uses from noncommercial diluting uses.<sup>238</sup> At least, this argument runs, we can protect firms from other firms' commercial dilutive uses, even if other actions may eventually change the meaning of the mark. Commercial uses of a mark are simply less valuable than noncommercial uses and can be suppressed for reasons that wouldn't support the suppression of speech across the board.

I do not find this argument particularly persuasive, mainly because free riding is endemic to a functioning economy.<sup>239</sup> Moreover, a noncompetitor's

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without proof that multiple uses will follow if this one, relatively insignificant, use is allowed to continue?

McCarthy, *supra* note 54, at 735 (footnotes omitted); *see also supra* notes 198–200 and accompanying text.

235. 507 U.S. at 418–19; *see also* Greater New Orleans Broad. Ass'n v. United States, 527 U.S. 173, 190 (1999) (holding that a regulation of truthful commercial speech pervaded with exemptions and inconsistencies fails the requirement that the regulation directly advance a substantial government interest); *id.* at 193–94 (“Even under the degree of scrutiny that we have applied in commercial speech cases, decisions that select among speakers conveying virtually identical messages are in serious tension with the principles undergirding the First Amendment.”).

236. An underlying assumption of current First Amendment doctrine is that truthful commercial speech has inherent value that puts the burden on those who would suppress it. If people enjoy buying Buick aspirin, that is reason enough to let them do so because the First Amendment considers their preferences at least as valid as the preferences of those who would like to have only one meaning for *Buick*.

237. *See* Edenfield v. Fane, 507 U.S. 761, 770–71 (1993) (“[A] governmental body seeking to sustain a restriction on commercial speech must demonstrate that the harms it recites are real and that its restriction will in fact alleviate them to a material degree.”); Cent. Hudson Gas & Elec. Corp. v. Pub. Serv. Comm'n of N.Y., 447 U.S. 557, 564 (1980) (“[T]he regulation may not be sustained if it provides only ineffective or remote support for the government's purpose.”).

238. I thank Graeme Austin for pressing me on this point.

239. *See generally* Robert G. Bone, *A Skeptical View of the Trademark Dilution Revision Act*, 11 INTEL. PROP. L. BULL. 187, 194 (2007) (“[I]t is hard to imagine a case of free riding in which the defendant has no legitimate reason to use the mark. It is always possible to argue that use of the mark avoids duplicative investment in creating the same public associations and also benefits consumers by offering a new product with those meanings and associations attached.”); Mark A. Lemley, *Property, Intellectual Property, and Free Riding*, 83 TEXAS L. REV. 1031 (2005) (defending much free riding). Well-accepted examples of free riding on trademarks include

free riding doesn't damage a trademark owner (as opposed to the junior user's competitors, like Joe's Diner forced to compete against the classysounding Tiffany's Restaurant) unless and until a significant number of the trademark owner's customers suffer from dilution. The harm of free riding without damage to the trademark owner is elusive. Nor does the label *free riding* serve to distinguish unprotected dilution from, for example, protected literary uses, such as *The Electric Kool-Aid Acid Test*<sup>240</sup> and *Barbie Girl*.<sup>241</sup>

Still, even someone who thinks that there's no reason to allow free riding on *trademarks*, as opposed to business models, expired patents, and the like, should consider that the cognition-based harms of dilution are largely inflicted by noncommercial uses and uses that fall outside current law. Protecting firms from marginal changes in the meaning of their marks induced by some commercial uses, simply because it is the most the law can do for them without harming free speech or suppressing legitimate competition, is not that helpful and risks speech-suppressive errors and wasteful litigation.<sup>242</sup>

### B. *Private Harm Versus Social Harm*

Many have criticized dilution law on the ground that the game isn't worth the candle. Even if dilution does harm to individual brands, trademark owners litigate too many cases, resulting in a net social loss.<sup>243</sup> Especially if we adopt a consumer-protection perspective on dilution, the fact that a particular trademark owner sues tells us nothing about whether consumers are on balance harmed or benefited by changes in that mark's meaning.

My argument is not that trademark owners lack a legitimate interest in whatever irrational responses marks trigger through Pavlovian conditioning. That may be true, but dilution will often work in just as irrational and

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comparative advertising, news reports on popular products and celebrities (and the ads surrounding those reports), artistic appropriations, such as Andy Warhol's Campbell's Soup and Brillo lithographs, and the placement of store brands next to major national brands to catch a budget-minded shopper's eye.

240. TOM WOLFE, *THE ELECTRIC KOOL-AID ACID TEST* (Black Swan 1989) (1968).

241. AQUA, *Barbie Girl*, on *AQUARIUM* (MCA Records 1997).

242. Sheff argues that courts could adopt the cognitive model yet apply normative principles to "wall off whole areas of human behavior from the reach of trademark liability, from utilitarian spheres such as news reporting and keyword indexing to expressive spheres such as commentary, criticism, parody, and appropriationist art." Sheff, *supra* note 9, at 384. Yet dilution's proponents have not made the argument for going halfway. Even if allowing a single producer to control a mark's meaning is more efficient than uncontrolled use, there is still no reason to think that an intermediate regime, in which one producer plus a set of "free speech" users can affect meaning, is preferable to a system without dilution protection, especially given the costs associated with creating and enforcing legal rights.

243. See, e.g., McCarthy, *supra* note 54, at 747 ("[T]oo many courts have viewed antidilution law as a quick and easy remedy to be applied whenever dilution theory says that injury to a famous mark might occur [without requiring evidence of actual harm].").

unconscious a fashion, putting diluters in not much better a moral position.<sup>244</sup> Dilutive exploitation of consumers' conditioned responses, however, produces consumer benefits as well as harms. If the food tastes better at Tiffany's Restaurant—as the marketing literature indicates it might, just as margarine wrapped in foil tastes better—patrons benefit.<sup>245</sup>

Rational trademark owners could overlitigate because stability in trademark value is not necessarily associated with social welfare. Trademark evangelists promise infinitely extended value from a carefully cultivated brand,<sup>246</sup> but the most perfectly nurtured mark can falter based on broader social shifts. Consider Ovaltine. If the fame and positive associations of this mark had substantial consumer benefits, then its relative desuetude would represent a social loss. But, as Dennis Karjala has written, this is no more true than the idea that decreased present-day demand for horses and buggies, now that most people use mechanized transport, represents a social-welfare loss.<sup>247</sup> People may or may not be happier with their beverages of choice than they were seventy years ago, but the persistent meaning of particular brands isn't the key to consumer satisfaction.

Even if exposure to Dogiva biscuits makes people prefer See's candy to Godiva, a change in taste is not a decrease in consumer surplus, at least absent deception or some other resulting social harm like increased pollution, and dilution law doesn't target such harms.<sup>248</sup> Especially given the overall marketing thesis that trademark values are composed of intangibles, the consumer who picks See's can be just as happy with her choice as she was with her former favorite, Godiva.<sup>249</sup> If we take seriously the idea that positive

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244. See, e.g., *Deere & Co. v. MTD Prods., Inc.*, 41 F.3d 39, 41 (2d Cir. 1994) (finding that an ad portraying John Deere's trademark buck as a small, cowardly creature likely violated New York's antidilution law).

245. See Klerman, *supra* note 54, at 1767 (stating that social benefit from favorable associations can outweigh social harm from increased searching costs).

246. See, e.g., Swann, *Dilution Redefined*, *supra* note 9, at 595 (arguing that brands are among a company's most valuable assets and, properly managed, retain their value despite huge shifts in the competitive environment); *id.* at 603–04 (contending that allowing trademark owners to control meaning will help consumers).

247. Dennis S. Karjala, *Congestion Externalities and Extended Copyright Protection*, 94 GEO. L.J. 1065, 1071–74 (2006). *But cf. id.* at 1074–75, 1075 & n.19 (distinguishing trademark dilution by accepting, though somewhat skeptically, that dilution causes consumer harm).

248. Sheff's analysis of dilution makes this clear, as he repeatedly indicates that the harm with which he is concerned is that consumers will make decisions they "would not otherwise make" because of free-riding uses. Sheff, *supra* note 9, at 376, 380. Different decisions are in themselves neither good nor bad; they are simply different. One could argue that dilution is harmful in the following way: Dilution changes consumers' emotional relations to a brand, making other competing brands relatively more appealing. And diluters will target famous brands because they will benefit most from free riding on famous brands. Thus, assuming there is a correlation between fame and quality, a dilution-caused shift towards less famous brands will harm consumers. But this is a fairly attenuated causal chain, and as discussed in the text, the malleability of quality judgments suggests that dilution will make up on the swings what it loses in the roundabouts.

249. See Klerman, *supra* note 54, at 1770 (arguing that qualities of close competitors are likely to be highly similar). Klerman does not specify whether he thinks the similarities will be perceptual

judgments are generated by branding instead of by (or merely along with) objective product attributes, as set forth in Part II, then Godiva's loss opens up mental space for the consumer to accept See's promises instead.

In our personal lives, we may say things like "I don't know what I ever saw in him," and loyal friends will respond, "I never liked him anyway." These statements can be entirely sincere because memory is revisable, which helps our evaluation of our new favorites and soothes the sting of losing the old ones. More specifically to marketing, trying a product often encourages us to like it, revising our preferences so that we are satisfied with the new consumption choice, convinced that we have traded up.<sup>250</sup> In such circumstances, dilution that led to the abandonment of one brand and the ascendance of another would not decrease consumer utility and might even increase it.

In other words, there is a contradiction between the marketing theory that supports dilution law—the idea that brand value inheres not in specific qualities but in a mental shorthand that acquires its own apparatus of positive feelings—and the idea that dilution harms consumers. If other marks are always prepared to provide a full complement of positive feelings, it is not clear why a consumer suffers when one mark falls in her estimation relative to others.<sup>251</sup> Marketers' insistence that strong brands offer "unique selling propositions" tend to focus on characteristics that are far from unique. Consider how many different marks could replace Jerre Swann's examples:

The "unique" quality of a strong brand often is its ability to satisfy emotional and self-expressive needs. A person can feel energetic when drinking PEPSI, cool when driving a Chrysler 300C with a HEMI engine, important while shopping at NORDSTROM, caring when buying a HALLMARK card, and "arrived" when wearing a ROLEX watch.<sup>252</sup>

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or in some sense "objective," as we might deem the percentage of cocoa in chocolate to be. Given that perceived quality is what changes with dilution, it should be easy for consumers to transfer their good feelings from one brand to another if dilution really occurs.

250. See generally Hoch, *supra* note 176, at 451–52 (arguing that preferences are to a great extent self-constructed, making product experiences more attractive *ex post* than *ex ante*).

251. See *id.* at 449, 451–52 (stating that consumers change their tastes so that they are happy with what they are consuming). Given that most brands on the market have the objective qualities required to satisfy consumers, the emotional benefits of branding can attach to any of them. See *id.* at 450 ("Quality parity is the norm in many categories. Products in frequently purchased categories have similar features and offer comparable levels of overall quality levels even when they are distinguished by superficial attributes . . . . [T]he inherent ambiguity in many product experiences can support interpretations that serve the consumer's best interests, whether that be a consistency with prior knowledge (confirmation) or prior choices (status quo)." (citation omitted)).

252. Swann, *Interdisciplinary Approach*, *supra* note 9, at 952.

Even in a static world, there would be alternative products to make us feel energetic, cool, important, caring, and “arrived,” and marketing is not static.<sup>253</sup>

This argument against stability for its own sake ties back into the First Amendment criticism. Compare the aim of dilution law, to allow trademark owners to stabilize the meaning of a mark, with Justice Thomas’s criticism of regulations of advertised alcohol content: he argued that the “asserted interest [in keeping] legal users of a product or service ignorant in order to manipulate their choices in the marketplace . . . is *per se* illegitimate and can no more justify regulation of ‘commercial’ speech than it can justify regulation of ‘noncommercial’ speech.”<sup>254</sup> In general, First Amendment doctrine favors robust competition in the marketplace of ideas rather than simplification that makes certain already-successful ideas easier to understand.<sup>255</sup> Dilution is a doctrine that favors meanings approved by established producers above meanings offered by challengers. It is anticompetitive, and to the extent that truthful commercial speech promotes democratic values, antidemocratic.<sup>256</sup>

## VI. Conclusion: Lessons for the Law

### A. *The Meaning of Dilution Law*

Like many academics, I am no fan of dilution law. As the analysis above indicates, I believe that present dilution laws should be found unconstitutional under the Supreme Court’s existing commercial-speech jurisprudence. Courts have generally been much more forgiving of trademark laws than of other regulations of commercial speech, however.<sup>257</sup> If this deference to legislative protections of “intellectual property” continues, constitutional assault may not be the most effective way of responding to dilution’s new justifications. Thus, this section discusses nonconstitutional

253. See Richard Woods, *Exploring the Emotional Territory for Brands*, 3 J. CONSUMER BEHAV. 388, 388 (2004) (“If only because of the relatively small number of primary emotions, however, brands in the same sort of categories tend to stand for the same sort of emotions . . .”).

254. 44 Liquormart, Inc. v. Rhode Island, 517 U.S. 484, 518 (1996) (Thomas, J., concurring).

255. See Red Lion Broad. Co. v. FCC, 395 U.S. 367, 390 (1969) (“It is the purpose of the First Amendment to preserve an uninhibited marketplace of ideas in which truth will ultimately prevail, rather than to countenance monopolization of that market . . .”).

256. Dilution cases are brought by private parties. But so are libel cases, and their systematic effects on speech still justify First Amendment scrutiny. See N.Y. Times Co. v. Sullivan, 376 U.S. 254, 265 (1964).

257. See, e.g., S.F. Arts & Athletics, Inc. v. U.S. Olympic Comm., 483 U.S. 522, 539 (1987) (upholding a statutory provision allowing the United States Olympic Committee to prohibit the commercial use of the word *Olympic* without proving that such use was likely to be confusing); Mut. of Omaha Ins. Co. v. Novak, 836 F.2d 397, 398 (8th Cir. 1987) (affirming the district court’s finding of infringement based on the likelihood of confusion between Mutual of Omaha’s registered trademark “Indian head” logo and Novak’s “Mutant of Omaha” design, which depicted a “feather-bonneted, emaciated human head”); Dallas Cowboys Cheerleaders, Inc. v. Pussycat Cinema, Ltd., 604 F.2d 200, 206–07 (2d Cir. 1979) (upholding a preliminary injunction prohibiting the distribution of the film *Debbie Does Dallas*).



limiting strategies that flow from recognizing the empirical weakness of the cognitive model of dilution.

1. *Resisting Expansion.*—The research discussed in this Article appears to allow us to get inside the mind and induces in marketers a fantasy of control of consumer perception. If cognitive science were the answer to the long-standing question “What is dilution?,” then many aspects of the current dilution doctrine would have to be reassessed. At the extreme, the vision of owning the customer could be used to justify legal control over all uses of a mark to ensure that only the associations the trademark owner approves of get made. An ownership claim has difficulty distinguishing among types of interferences with trademark owners’ enjoyment of their properties, whether by competitors, noncompetitors, or consumers’ own opinions.

The cognitive model’s proponents already recognize that their theory justifies expanding federal dilution law substantially.<sup>258</sup> The first obvious change would be to use dilution to protect less-famous marks because the evidence shows that famous marks are more likely to resist dilution of their own force. The most careful studies finding dilution effects use marks that would probably not succeed with federal dilution claims. Pullig and his colleagues, for example, tested the effects of identical marks on Big Red gum, Trix cereal, and Gap khakis.<sup>259</sup> Gap khakis were tested using a product category in which the trademark owner already has a registration, making dilution protection unnecessary.<sup>260</sup> The other two marks, Big Red and Trix, are unlikely to qualify for federal dilution protection because of the large number of similar or identical marks already in use on other products.<sup>261</sup> Yet

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258. See Sheff, *supra* note 9, at 375 (“[S]trict adherence to a behavioralist model of trademark liability has the potential to greatly broaden the scope of such liability . . .”).

259. Pullig et al., *supra* note 65, at 63.

260. See *id.* at 63. There are only a few marks registered under the name *Gap* that are not owned by Gap Inc., though a large number of other marks incorporate the word *Gap* as part of a longer name. See U.S. Patent & Trademark Office, Trademark Electronic Search System (TESS), <http://tess2.uspto.gov/bin/gate.exe?f=tess&state=1hshsb.1.1> (providing a searchable database of U.S. trademarks and listing 360 live registered marks that include the word *Gap* when it was searched on May 18, 2006). The dilutive brand Pullig et al. tested, Gap stain-resistant sheets, falls within Gap Inc.’s registration number 2341527, which includes bed sheets. See *id.* Because Gap competes in this category, a trademark infringement claim against Gap stain-resistant sheets would almost certainly succeed.

261. Big Red gum showed significant effects from dilution by Big Red snack bars. See Pullig et al., *supra* note 65, at 57–58. Yet the name consists of two highly descriptive terms, which limits its protectability. In a search of the electronic trademark-registration records on November 10, 2006, I found numerous live registered Big Red marks for products including industrial cleaners, soft drinks, pet food, lottery services, equipment switches, work benches, chicken sandwiches, wine, chewing tobacco, and thermometers. There are also a number of marks incorporating Big Red, such as Clifford the Big Red Dog marks for numerous goods, including cakes and lip balm. Cornell and the University of Wisconsin also use *Big Red* as a nickname. The large number of other users is not surprising, since many people can have good reasons to use the descriptive term *Big Red*. Big Red soda and wine and Clifford the Big Red Dog food products are highly similar to the hypothetical products Pullig et al. tested, meaning the Big Red mark is prediluted and subject to

if lawmakers agree with Pullig and his colleagues that their results correspond to the legal concept of trademark dilution, then the fame requirement is too high a bar and many more marks should receive dilution protection.

Likewise, in a study that proposed standards for determining dilution, Morrin and her colleagues tested eight different brands, none of which should qualify as famous.<sup>262</sup> Most obviously, immediately after being exposed to Parker pens, Viking computers, and Gibson greeting cards, more than half the respondents in the *nondiluted* condition failed to remember them, indicating that those marks had only limited actual distinctiveness.<sup>263</sup> Even the marks that respondents remembered well after exposure—Ace, Bass, Kiwi, Mercury, and Pioneer—are poor candidates for federal protection.<sup>264</sup> These eight marks are laudatory (Ace, Pioneer), personal names (Parker, Bass, Gibson), or common words with nontrademark meaning (Kiwi, Mercury, Viking), all of which have generally been available for others' nonconfusing uses.

Despite the good reasons for that availability, Morrin and her colleagues advocate extending dilution protection to marks like these to ensure that “the first user owns that brand name in the consumer’s memory, rather than having to share associations with other product categories.”<sup>265</sup> Thus, because

competing associations with other product attributes. See 15 U.S.C.A. § 1125(c)(2)(B)(iii) (West Supp. 2007) (directing courts in dilution cases to consider “[t]he extent to which the owner of the famous mark is engaging in substantially exclusive use of the mark”). Big Red soda is particularly popular in Texas and is said to taste like bubble gum. See Joc Nick Patoski, *Big Red*, TEXAS MONTHLY, Aug. 1986, at 120, 120–21, available at <http://www.texasmonthly.com/ranch/readme/bigred.php> (noting that “[t]he only beverage that consistently outsells Big Red in San Antonio is Coca-Cola,” and describing the taste as “something like liquid bubble gum”); Big Red Soda - The BevNET.com Review, <http://www.bevnet.com/reviews/bigred> (“If we ever had a beverage that tastes just like bubble gum, this is it.”).

As for Trix, there are only five other live registered Trix marks in the database (tick removal, office furniture, model trains, leather desk accessories, and rubber hoses), but a significant number of other marks incorporate Trix, from Snak Trix (fishing lures) to Glowtrix (styling aid) to Pix & Trix (toys). An additional use that evoked the meaning of *tricks* would have a strong claim to be nondiluting. See *Nabisco, Inc. v. PF Brands, Inc.*, 191 F.3d 208, 221 (2d Cir. 1999) (“It is a generally accepted principle of the trademark law, furthermore, that a senior claim to a mark does not bar a junior from using the same words (or symbols) comprising the mark in their descriptive sense.”).

262. See Morrin et al., *supra* note 87, at 251 (listing the eight brands as “Parker pens, Ace hardware stores, Kiwi shoe polish, Bass ale, Gibson greeting cards, Viking computer components, Mercury automobiles, and Pioneer audio equipment”).

263. See *id.* at 252 tbl.2 (listing the percentage of members of the “undiluted” control group who could recall the first user as 49.1% for Parker, 13.2% for Gibson, and 45.3% for Viking).

264. See *id.* (listing the percentage of members of the “undiluted” group who could recall the first user as 90.6% for Ace, 60.4% for Kiwi, 77.4% for Bass, 98.1% for Mercury, and 85.8% for Pioneer).

265. *Id.* at 251. Morrin et al. tested Parker pens as the first user, *id.*, though Parker Brothers games (the dilutive use) appear to have beaten the pens to the market by a year; Parker Brothers' first use of its mark in commerce was 1888, see *The Story of Parker Brothers*, [http://www.hasbro.com/default.cfm?page=ci\\_history\\_pb](http://www.hasbro.com/default.cfm?page=ci_history_pb), whereas Parker pens entered the market in 1889, see *The History of Parker Pens*, [http://www.parkerpen.com/en/discovery/making\\_of/timeline](http://www.parkerpen.com/en/discovery/making_of/timeline). The bigger question, of course, is what harm this century plus of coexistence has done to either,

exposure to Ace uniforms reduced the number of people who thought only of Ace hardware stores when shortly thereafter exposed to the mark Ace, dilution protection should be broadened (presumably also to bar Ace bandages).<sup>266</sup> The procompetitive reasons for allowing multiple nonconfusing marks still exist, but the apparently objective evidence of dilution—evidence that a trademark owner lacks “ownership” of mental processes it could theoretically enjoy—provides a new reason for propertizing words that were formerly available to other producers in search of terms to describe or praise their own businesses.

Other proposals for expanding dilution law use cognitive theory to advocate that the law should protect marks that are only well recognized among a subset of consumers,<sup>267</sup> bar all free riding as well as blurring and tarnishment,<sup>268</sup> prohibit retailers’ common practice of using packaging for house brands that imitates the dominant national brand,<sup>269</sup> and otherwise maximize protection for distinctive marks.<sup>270</sup> Protecting a brand’s image, rather than its association with a source or even its association with particular qualities,<sup>271</sup> requires an ever-expanding law—which, among other things, would have little tolerance for parody, comparative advertising, negative reviews, or unusual children’s names.

These are all bad ideas. So far, the evidence in favor of the cognitive model is not persuasive enough to justify realigning doctrine around it. Consumers are not passive recipients of meaning injected by marketing and likely never will be no matter how much marketing science improves, if only

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regardless of who was first. The other dilutive marks in Morrin et al.’s study have also been around for decades.

266. See Morrin et al., *supra* note 87, at 253 (arguing that because familiarity provides resistance to dilution, a high-fame requirement means that few of the brands entitled to federal dilution protection will ever suffer harm from dilution, and thus fame should be interpreted generously).

267. See Swann, *Interdisciplinary Approach*, *supra* note 9, at 967–68. Unsurprisingly, Swann cites Morrin & Jacoby, *supra* note 49, for the proposition that a competitor’s use of Tiffany’s blue color could dilute Tiffany’s brand value. Swann, *Interdisciplinary Approach*, *supra* note 9, at 968 n.163. All else aside, this is a misapplication of their research, which deals with products in noncompeting, distinct categories; other dilution researchers have noted that imitation of similar products can reinforce rather than dilute. See, e.g., Pullig et al., *supra* note 65, at 62.

268. See Swann, *Interdisciplinary Approach*, *supra* note 9, at 970 (“Elevating free riding to a stand-alone vice may thus give modern strong brands the protection that they may not receive under current concepts.”).

269. See *id.* at 970–71.

270. See *id.* at 976 (“For the present needs of strong marks, it is likely that precedent already exists to prevent trading on their elaborate networks . . . . To the extent that precedent is deemed not to exist, the common law flexibility of unfair competition must be revived with an infusion from modern marketing and cognitive psychology . . . .”). As Graeme Dinwoodie and Mark Janis have pointed out, the fame requirement has little connection to the search-costs rationale for dilution. Dinwoodie & Janis, *supra* note 186, at 100. It is thus reasonable for dilution’s proponents to seek to relax the fame requirement.

271. See Swann, *Interdisciplinary Approach*, *supra* note 9, at 972 (“Just as trademarks have evolved, we have moved legally from source as king to the salience of quality; we should now move to brand imagery as an object of trademark concern.”).

because of competition among marketers themselves that will allow consumers some space for choice. There is no prelapsarian state of purely controlled information flow to which a properly configured dilution law could return us.

Moreover, even if the cognitive model were proven, dilution law in anything like its current form could never address the harms the model identifies. Given the important policy objectives that the current limits and exceptions serve—mainly promoting competition and preserving freedom of speech—Congress is unlikely to expand dilution to cover most currently unregulated diluting uses. Rather than justifying the intuitions that drive dilution law, then, cognitive science exposes the gap between dilution theory and market and political realities.

Mark McKenna has recently put forth a powerful historical argument tracing the evolution of the values that trademark is said to promote.<sup>272</sup> Trademark law originally protected trademark owners against lost sales caused by infringing marks on competing products.<sup>273</sup> Over time, the concept of trademark expanded to cover harm to “goodwill” when consumers were confused about the relationship between marks on noncompeting goods and then to protect brand value generally.<sup>274</sup> The idea of protecting consumers has consistently encouraged new theories of liability because courts have consistently discovered new sources of potential consumer harm.<sup>275</sup> Currently, postsale confusion; confusion on the part of nonconsumers, such as investors; and initial interest confusion all support liability for trademark infringement on the theory that they protect purchasers from deception as well as support producer interests.

Dilution is supposedly the next step in consumer protection. We should not take that step. Instead, we should reaffirm the competing interests that trademark law serves—interests in fair competition and the availability of useful terms to multiple producers.<sup>276</sup> Infinitely expanding trademark owners’ rights in the name of consumer protection is a mistake and will ultimately harm consumers by hampering competition.

2. *Providing Administrable and Rational Limits.*—Because the search-costs model is so deeply flawed but also so attractive, dilution law needs external limits to structure it in harm-minimizing ways. The concept that dilution law only bans the use of a trademark as a mark for a defendant’s own goods or services offers a limit on dilution that solves a number of

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272. See McKenna, *supra* note 32.

273. *Id.* at 1841.

274. *Id.* at 1910–11.

275. See generally Bartow, *supra* note 224 (discussing persistent judicial concepts of consumers as vulnerable to confusion of all kinds).

276. See Rebecca Tushnet, *Why the Customer Isn’t Always Right: Producer-Based Limits on Rights Accretion in Trademark*, 116 YALE L.J. POCKET PART 352 (2007), <http://yalelawjournal.org/2007/04/25/tushnet.html> (discussing doctrines that limit the rights of trademark owners in order to protect the free use of terms helpful to other producers).

problems.<sup>277</sup> Still, it is important to recognize that “use as a mark” uncouples the law from actual determinants of marks’ meaning. At the extreme, it is possible to create associations that affect the evaluation of a product simply by putting it in proximity with another product.<sup>278</sup> Use of one famous mark in a category, such as Adidas for athletic shoes, can even activate thoughts of other famous marks in that category, such as Nike.<sup>279</sup> One of the main analogies used in keyword-search cases—the common grocery-store practice of stocking house brands next to popular national brands—involves a use of the selling power of the national brand, though not a “use” in the current sense trademark law gives to that term.<sup>280</sup> This sensitivity of marks to context raises the specter of dilution any time there might be an effect on consumers’ mental models of a trademark’s meaning. If dilution cannot be extirpated from the law, bright-line rules guarding against expansion beyond a small core of specific uses might be good coping mechanisms.

One interpretation of dilution that does not require reliance on expansive and unproven theories about consumers’ mental states was set forth by the First Circuit in an early case interpreting the original federal dilution law: when a mark is unique and famous, others may be barred from using that mark or an indistinguishable variant to identify their own goods and services.<sup>281</sup> High standards for fame, uniqueness, and near identity between the senior and junior marks provide limits on the concept of dilution and may allow courts to bar objectionable free riding without expensive and uncertain evidentiary battles.<sup>282</sup> Such a dilution regime might not do much good, but it wouldn’t do much harm either.

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277. See Dogan & Lemley, *supra* note 188 (discussing the new “use as a mark” requirements in federal dilution law); *cf.* Sheff, *supra* note 9, at 384 (recognizing the expansiveness of the associatist model and suggesting trademark use as a normative limit). For a critique of trademark use as a bright-line limit on the scope of trademark law, see Graeme B. Dinwoodie & Mark D. Janis, *Confusion over Use: Contextualism in Trademark Law*, 92 IOWA L. REV. 1597 (2007).

278. See Kronlund & Bernstein, *supra* note 192, at 684 (discussing the results of a study on the effects of sequential exposure to brands); Levin & Levin, *supra* note 193, at 47–49 (discussing the effects of physical proximity on restaurant evaluations).

279. Swann, *Dilution Redefined*, *supra* note 9, at 608.

280. See, e.g., Stacey L. Dogan & Mark A. Lemley, *Grounding Trademark Law Through Trademark Use*, 92 IOWA L. REV. 1669, 1692–93 (2007) (using this analogy). Eric Goldman has investigated the numerous ways in which retailers and others can “use” trademarks to create value for themselves, including placement within stores as well as placement of the stores themselves to draw value from nearby stores. See Goldman, *supra* note 191. Kardes et al. also found that the physical presence of one brand could suppress recognition of other brands and suggested that this effect could be manipulated by prominent placement in stores. Kardes et al., *supra* note 197, at 143.

281. See *I.P. Lund Trading ApS v. Kohler Co.*, 163 F.3d 27, 45–46 (1st Cir. 1998).

282. See *id.* at 45–50 (applying stringent standards for fame and dilution and reversing the district court’s grant of a temporary injunction on a dilution claim); *cf.* Farley, *supra* note 38, at 111–12 (arguing that dilution is unreal and unprovable and that dilution law is really about preventing unfair free riding, although a sufficient definition of what is unfair is lacking).

### B. *The Meaning of Cognitive Science*

Cognitive science offers a seemingly objective explanation of a perplexing legal doctrine. It is thus in trademark owners' interest to present new measures of dilution as analogous to fingerprint evidence—new data supporting the identification of guilty parties without changing the underlying crime. The use of cognitive evidence, however, may prove to be far more like the application of economics to antitrust, which led courts to revisit the question of what counted as a harm to competition, and thus as a violation of the law, in the first instance.<sup>283</sup> In antitrust, vague statutory language lent itself to judicial interpretation, at first used to attack various business practices perceived as wrongful.<sup>284</sup> Once economics entered the picture, the focus shifted to maximizing “efficiency,” an overarching principle that could be used to give content to the underdefined statutory language.<sup>285</sup> The same is true of dilution: vague statutory language has for a long time been used rather haphazardly to suppress practices courts see as unfair free riding. Judicial dissatisfaction with the absence of a clear theory of dilution has, however, hampered the doctrine's expansion. Cognitive theories offer to play the same role as economics in antitrust—simultaneously explaining and changing the cause of action, but this time expanding it rather than contracting it.<sup>286</sup>

Jennifer Mnookin has argued that even apparently objective categories of evidence, such as fingerprint matching and handwriting identification,

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283. See generally MARC ALLEN EISNER, *ANTITRUST AND THE TRIUMPH OF ECONOMICS* 228–31 (1991) (discussing the ascendance of economics in antitrust policy and judicial decision making); John E. Kwoka, Jr. & Lawrence J. White, *Introduction to THE ANTITRUST REVOLUTION: ECONOMICS, COMPETITION, AND POLICY* 1, 1, 1–5 (John E. Kwoka, Jr. & Lawrence J. White eds., 3d ed. 1999) (describing the “economic revolution in antitrust” and the emergent role of economics in court decisions interpreting antitrust law and policy).

284. See EISNER, *supra* note 283, at 228–29 (discussing how courts and agencies gave substantive content to the vague economic and policy goals of the Sherman Act); Kwoka & White, *supra* note 283, at 1 (“Throughout, [antitrust] diligently pursued what it perceived to be predatory conduct by large companies against smaller rivals and new entrants.”).

285. See Kwoka & White, *supra* note 283, at 2 (“Efficiency, [the Chicago School] has maintained, is what the plain language of the law implies and in any event is the only objective that can sensibly be pursued.”); see also EISNER, *supra* note 283, at 229, 229–31 (“Economics could contribute an organizing paradigm for judicial decision making [in antitrust cases]. . . . It could furnish simple decision rules for selecting cases and suggest which data were most appropriate to reveal the effects of a given restraint.”). In many cases, conceiving of antitrust law in rigorous economic terms had the effect of limiting the available causes of action. Courts and agency officials have taken a more permissive view of megamergers, price-fixing schemes, and especially vertical integration after economics began reshaping the doctrine. See Kwoka & White, *supra* note 283, at 2–3.

286. Cf. Kevin Emerson Collins, *Cybertrespass and Trespass to Documents*, 54 CLEV. ST. L. REV. 41, 47–48 (2006) (discussing the ways in which conceiving of electronic signals as newly detectable small particles, analogous to previously unmeasurable environmental pollution, enabled courts to create expansive doctrines of trespass to chattels in cyberspace that pose substantially different risks to free expression and competition than trespass to chattels traditionally did).

reflect the social construction of reliability.<sup>287</sup> Judges had some discomfort with handwriting identification, but given that authorship of documents was often an issue and that there was rarely any other type of evidence available, they were under enormous pressure to declare it reliable enough to admit.<sup>288</sup> The analogy to psychological evidence of dilution, when dilution is otherwise an obscure concept, should be a cautionary one. Cognitive theories may be the best of a bad lot, but we have the option of rejecting the entire lot rather than adopting the least rotten theory.

As Mnookin points out, moreover, the fact that fingerprint and handwriting experts worked almost exclusively for police and prosecutors had systematic effects on the new evidence's meaning for defendants.<sup>289</sup> Similarly, like ordinary consumer surveys, cognitive-science-based evidence about particular trademarks is expensive to collect, leading to its asymmetrical availability. The underlying science is also shaped by demand. If the Coca-Cola Company can fund its own neuroscience but consumer groups can't, the questions and answers in the research will be focused on the needs of already-successful producers.

Rather than simply codifying old intuitions, the process of providing new explanations for old labels changes the set of things to which the labels are applied. This is a process fraught with danger both for nonlegal disciplines, which may find themselves manipulated for litigation purposes, and for the law, whose categories may not be compatible with those of other disciplines. The cognitive model of dilution is an example of a legal theory that, in claiming scientific truth, has overstated its basis in both science and law. In a complex, dynamic system like that of trademark law, there are no magic bullets, or magic MRIs.

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287. See generally Jennifer L. Mnookin, *Fingerprint Evidence in an Age of DNA Profiling*, 67 BROOK. L. REV. 13 (2001) [hereinafter Mnookin, *Fingerprint Evidence*] (tracing fingerprinting's rapid acceptance by the courts and the public); Jennifer L. Mnookin, *Scripting Expertise: The History of Handwriting Identification Evidence and the Judicial Construction of Reliability*, 87 VA. L. REV. 1723 (2001) [hereinafter Mnookin, *Scripting Expertise*] (discussing the rise and fall of handwriting identification as a science).

288. Mnookin, *Scripting Expertise*, *supra* note 287, at 1728.

289. See Mnookin, *Fingerprint Evidence*, *supra* note 287, at 42–43; Mnookin, *Scripting Expertise*, *supra* note 287, at 1783–84.