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Product-Related Risk and Cognitive Biases: The Shortcomings of Enterprise Liability

James A. Henderson, Jr.* & Jeffrey J. Rachlinski**

I. INTRODUCTION

Risk is ubiquitous. People face not only a bewildering array of hazards, but also precautions that purport to reduce them. Manufacturers complicate people's efforts to determine which hazards to accept and which to avoid with advertising designed to encourage people to use products that create risk and to purchase safety precautions. Much of this advertising works at cross purposes. A typical television viewer might watch an advertisement encouraging her to endure the risks of downhill skiing followed by one admonishing her to purchase an expensive set of radial tires that provide some marginal degree of protection against the risk of an automobile accident (presumably while driving to a ski resort). Commercials hawking products with known cancer risks, such as beer and coffee, often follow ads for breakfast cereals that "*may reduce the risks of some kinds of cancer.*" (The ideal breakfast would presumably be a bowl of oat bran accompanied by several cups of strong coffee.)

This barrage of mixed messages, combined with an underlying dearth of public information about risk and a plethora of cognitive impediments to accurate risk assessment, ensures that consumers cannot make choices that result in anything like optimal levels of product-related safety. People's incomplete and inaccurate under-

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standing of risk confounds efforts to identify the system of products liability that would best encourage appropriate patterns of product design, production, marketing, use and consumption. Liability rules affect all of these elements and they all interact with one another.¹ Given these realities, the regulator's task seems hopeless.

Despite the difficulties, a few basic observations are generally well-accepted in the literature on products liability law. Manufacturers know more about their products than do consumers, which justifies imposing some liability on manufacturers. Absent constraints, manufacturers would be able to use their superior knowledge to dupe, and thereby harm, consumers.² Consumers, however, have more control over how they use their products than do manufacturers, which justifies limitations on manufacturer's liability.³ Requiring manufacturers to serve as absolute insurers would impose liability on manufacturers for harm that could better be prevented by consumers.⁴

These issues are hardly novel. The courts and academic commentators have long struggled to develop sensible products-liability rules that address the relative ability of manufacturers and consumers to identify and respond appropriately to risk.⁵ At present, the common-law torts process provides a reasonably clear

1. For a general treatment of the authors' systems approach, see Lynn M. LoPucki, *The Systems Approach to Law*, 82 Cornell L. Rev. 479, 482-88 (1997). As support for systems analysis, LoPucki relies upon Ervin Laszlo, *Introduction To Systems Philosophy* 10-21 (1972), which describes the methodological and conceptual foundations of systems philosophy and proposes a systems analysis in which the interdependent elements of each system are understood as systems-in-environments, creating a hierarchy of ever more inclusive systems.

2. See William M. Landes & Richard A. Posner, *A Positive Economic Theory of Products Liability*, 14 J. Legal Stud. 535, 544-45 (1985). *But see* Richard A. Epstein, *The Unintended Revolution in Products Liability Law*, 10 Cardozo L. Rev. 2193, 2204-05 (1989) (criticizing this assertion).

3. See James A. Henderson, Jr. & Aaron D. Twerski, *Closing the American Products Liability Frontier: The Rejection of Liability Without Defect*, 66 N.Y.U. L. Rev. 1263, 1283-84 (1991) [hereinafter Henderson & Twerski II]; Landes & Posner, *supra* note 2, at 549-50.

4. See George L. Priest, *A Theory of the Consumer Product Warranty*, 90 Yale L.J. 1297, 1313-19 (1981).

5. See generally George L. Priest, *The Invention of Enterprise Liability: A Critical History of the Intellectual Foundations of Modern Tort Law*, 14 J. Legal Stud. 461 (1985) (reviewing the evolution of these concepts in tort law).

rule governing manufacturers liability.⁶ Regarding commercially distributed products, manufacturers are responsible—are liable in tort—for all injuries caused by product defects—production errors and unreasonably unsafe product designs and marketing. Consumers are responsible for the rest.⁷ Liability for manufacturing defects is strict. Manufacturers' liability for generic product hazards depends upon a finding that they have done something negligent—either by designing products improperly or failing to warn of the dangers products pose.⁸ Despite “strict liability” rhetoric in some scholarship and judicial opinions, manufacturers' liability for product design and marketing traditionally requires a finding of fault.⁹

Numerous legal scholars have proposed alternatives to the traditional fault-based system for generic product hazards.¹⁰ The most commonly advanced reform over the last three decades is that of eliminating the role of fault and holding manufacturers strictly liable for all of the harm their products cause. A system of strict manufacturers' liability for all product-caused harm is commonly referred to as enterprise liability (“EL”).¹¹ In a system of EL, liability flows from the brute fact of commercially distributing

6. See Henderson & Twerski I, *supra* note 3, at 1329-31; James A. Henderson & Aaron D. Twerski, *Achieving Consensus on Defective Product Design*, 83 Cornell L. Rev. 867 (1998) [hereinafter Henderson & Twerski II].

7. See Restatement (Third) of Torts: Prod. Liab. § 17 (1998); Henderson & Twerski I, *supra* note 3, at 1284.

8. See Restatement (Third) of Torts: Prod. Liab. § 2 cmts. d, i (1998). See also Sheila L. Birnbaum, *Unmasking the Test for Design Defect: From Negligence [to Warranty] to Strict Liability to Negligence*, 33 Vand. L. Rev. 593 (arguing that even though courts claim to impose a strict liability standard for products liability, the test is really no more than a traditional negligence standard); Henderson & Twerski II, *supra* note 6, at 868-72 (suggesting the misconception that the standard for defective product design is unsettled, incorrect and unnecessary).

9. See Henderson & Twerski II, *supra* note 6, at 868-72.

10. See Priest, *supra* note 5, at 519-27. See generally Stephen P. Croley & Jon D. Hanson, *Rescuing the Revolution: The Revisited Case for Enterprise Liability*, 91 Mich. L. Rev. 683, 692-95 (1993) (discussing different liability rules); James A. Henderson, Jr., *The Efficacy of Organic Tort Reform*, 77 Cornell L. Rev. 596 (1992) (reviewing the strict liability tort reform proposals offered by W. Kip Viscusi, *Reforming Products Liability* (1991)); Alan Schwartz, *Proposals for Products Liability Reform: A Theoretical Synthesis*, 97 Yale L.J. 353 (1988) (using the theories of tort and contract to overcome products liability problems).

11. See Priest, *supra* note 5, at 462-64.

a particular product rather than from failing to ensure that the product is reasonably safe.¹²

Most scholarship comparing fault-based liability and EL concludes that, at least in theory, both systems create the same incentives for manufacturers to invest in product safety.¹³ Both systems pressure manufacturers to incorporate optimal cost-effective precautions into their products.¹⁴ Law-and-economics scholars also argue that for goods that are consumed quickly (non-durables), the choice between negligence and strict liability would not (with perfect information by manufacturers and consumers) affect the level of product consumption.¹⁵ Putting aside difficulties in implementation,¹⁶ policy concerns have discouraged widespread adoption of the EL system because it undermines consumer incentives to avoid accidents. Under an EL system, manufacturers must compensate consumers for all of the harm that products cause, thereby significantly reducing incentives for consumers to avoid inefficiently dangerous patterns of product use and consumption.¹⁷ Manufacturers are generally better able to identify efficient safety precautions, but consumers are often in a better position to assess not only how to use or consume a product but whether to do so in the first place.

12. For an enlightening exchange regarding the claim that enterprise liability is, at its most basic level, a means to hold manufacturers strictly liable for all injuries caused by their products, see Geistfeld, *supra* note 12; Henderson & Twerski I, *supra* note 3; James A. Henderson, Jr. & Aaron D. Twerski, *The Unworkability of Court-Made Enterprise Liability: A Reply to Geistfeld*, 67 N.Y.U. L. Rev. 1174 (1992).

13. See Steven Shavell, *Strict Liability Versus Negligence*, 9 J. Legal Stud. 1, 7-8 (1980).

14. See *id.*

15. See *id.* Shavell's analysis, however, assumes that products pose essentially the same risks to all consumers. If a product puts some consumers at much greater risk than most, then these consumers will only purchase the product under a strict-liability regime.

16. See Henderson & Twerski I, *supra* note 3, at 1279-86. For a discussion of the prohibitive difficulties that characterize widespread implementation of enterprise liability, see *infra* notes 104-11 and accompanying text.

17. See Landes & Posner, *supra* note 2, at 549-50. The existing system of product liability, with its contributive and comparative fault provisions, requires that designers must anticipate foreseeable user misconduct and consider this potential for foolish behavior when they design the product. See James A. Henderson & Aaron D. Twerski, *Products Liability: Problems and Process* 271-72 (4th ed. 2000).

Supplementing EL with a contributory negligence defense would mitigate, but by no means eliminate, these difficulties.¹⁸

Recently, some legal scholars have developed a new rhetorical weapon supporting the adoption of EL.¹⁹ These scholars argue that manufacturers employ advertising techniques in ways that completely undermine the justifications for retaining a fault-based liability system. They contend that manufacturers rely on advertising to induce consumers to disregard the risks that many products pose.²⁰ The ability of manufacturers to manipulate consumer preferences suggests to these scholars that manufacturers are not only in the best position to assess safety precautions, but are also in the best position to determine the socially efficient rates at which products are used and consumed. These claims, if true, support adopting EL. Such a system, these scholars argue, would eliminate incentives for manufacturers to induce people to consume products inefficiently. Consequently, the scholars developing this new rhetoric assert that adopting EL is necessary to give manufacturers adequate incentives to refrain from manipulating consumers in socially destructive ways.

18. See Restatement (Third) of Torts: Prod. Liab. § 17 cmt. a (1998) (identifying the three main issues in a products liability action involving consumer misuse, alteration, and modification of a product: (1) determining whether the product is defective; (2) determining the legal cause; and (3) determining whether plaintiff's conduct constitutes contributory fault, and thus should reduce the plaintiff's recovery under the rules of comparative responsibility); Henderson & Twerski I, *supra* note 3, at 1283-84.

19. The two principal papers in this line of work are Jon D. Hanson & Douglas A. Kysar, *Taking Behavioralism Seriously: The Problem of Market Manipulation*, 74 N.Y.U. L. Rev. 630, 715 (1999) [hereinafter Hanson & Kysar I]; Jon D. Hanson & Douglas A. Kysar, *Taking Behavioralism Seriously: Some Evidence of Market Manipulation*, 112 Harv. L. Rev. 1420 (1999) [hereinafter Hanson & Kysar II]. Several other papers develop arguments that are similar, or related, to those made in these two papers. See Croley & Hanson, *supra* note 10; Mark Geistfeld, *Implementing Enterprise Liability: A Comment on Henderson and Twerski*, 67 N.Y.U. L. Rev. 1157 (1992); Jon D. Hanson & Kyle D. Logue, *The First-Party Insurance Externality: An Economic Justification for Enterprise Liability*, 76 Cornell L. Rev. 129 (1990); Jon D. Hanson & Kyle D. Logue, *The Costs of Cigarettes: The Economic Case for Ex Post Incentive-Based Regulation*, 107 Yale L.J. 1163 (1998); Mark Geistfeld, Note, *Imperfect Information, the Pricing Mechanism, and Products Liability* 88 Colum. L. Rev. 1057 (1988). The papers also draw on work by Professor Howard Latin. See Howard A. Latin, "Good Warnings", *Bad Products, and Cognitive Limitations*, 41 U.C.L.A. L. Rev. 1193 (1994); Howard Latin, *Problem-Solving Behavior and Theories of Tort Liability*, 73 Cal. L. Rev. 677 (1985).

20. See Hanson & Kysar I, *supra* note 19, at 724-43; Hanson & Kysar II, *supra* note 19, at 1425-27.

The new rhetoric supporting EL has superficial appeal. It relies on well-documented psychological insights into human decision-making and tells a simple, clever story. It has even found limited acceptance in some courts.²¹ The argument espoused by the new rhetoric, however, is ultimately unpersuasive. It provides no quantitative assessment of the extent of the problem it purports to identify, fails to take account of the existing legal mechanisms available to address the manipulation of consumers and does not even attempt to address the practical problems presented by a strict liability system for products. These difficulties cannot be dismissed as mere trifles. Absent sensible responses to these concerns, courts and legislatures should not—and we predict will not—seriously consider adopting an EL system.

Furthermore, on its own terms, the new rhetoric advocating EL fails to “take behavioralism²² seriously” by ignoring the fact that the manipulation of consumers is a two-way street.²³ Although several cognitive processes lead people to underestimate and under-react to risk, as EL’s new proponents observe,²⁴ many other cognitive processes produce the opposite result.²⁵ Consequently, just as some manufacturers most certainly attempt to induce consumers to behave as if a product is safer than it appears,

21. See also *Lorrillard Tobacco Co. v. Reilly*, 84 F. Supp. 2d 180, 187 (D. Mass. 2000); *In re Number Nine Visual Tech. Corp. Secs. Litig.*, 51 F. Supp. 2d 1, 20 (D. Mass. 1999) (“[I]t is hardly surprising that markets sometimes fail to exhibit perfectly wealth-maximizing behavior, given the plethora of evidence from cognitive psychologists and decision theorists suggesting that humans frequently behave in nonrational ways, and that these ‘cognitive biases’ are largely incapable of being unlearned.”). See also *Perez v. Wyeth Labs., Inc.*, 734 A.2d 1245, 1247 (1999) (holding that when “mass marketing of prescription drugs seeks to influence a patient’s choice of a drug, a pharmaceutical manufacturer that makes direct claims to consumers for the efficacy of its product should not be unqualifiedly relieved of a duty to provide proper warnings of the dangers or side effects of the product.”).

22. The term, “behavioralism,” is inappropriate in this context. The psychological research that Professors Hanson and Kysar rely on arises from cognitive, not behavioral, psychology. See Jeffrey J. Rachlinski, *The “New” Law and Psychology: A Reply to Critics, Skeptics, and Cautious Supporters*, 85 Cornell L. Rev. 739, 740 (2000). Behavioral psychology can be closely tied to micro-economic theory, which cognitive psychology can be used to critique. See *id.*

23. See Alan Schwartz, *Proposals for Products Liability Reform: A Theoretical Synthesis*, 97 Yale L.J. 353, 380-83 (1988) (psychological research shows both underestimation and overestimation of risk).

24. See Hanson & Kysar I, *supra* note 19, at 696-704.

25. See *id.* at 704-14.

others no less certainly attempt to induce consumers to behave as if a product is more dangerous than it appears.

EL's new proponents argue that EL would force manufacturers to set prices that reflect the true risk products pose and refrain from manipulative advertising about risk, as there would be no profit in it.²⁶ What they disregard is the possibility, indeed the *certainty*, that under an EL regime, manufacturers would induce consumers to purchase extra safety precautions to reduce the risk of accidents. EL's new proponents would have us believe that the same consumers who misunderstand safety, risk and their own preferences, somehow perfectly understand that the legal system forces manufacturers to cover them for the injuries products pose. We think not. Rather, we argue that, under EL, consumers would be purchasing insurance against product-related injury, but would also remain ignorant of this insurance (perhaps with the help of manipulative advertising by those manufacturers who sell excess safety). Thus, EL would aggravate the incentives that manufacturers already face to exaggerate the risks products pose, resulting in a social excess of safety precautions.

This paper addresses the new rhetoric supporting EL. Part I describes the argument, advanced by the new proponents of EL, that relies on consumer psychology. Part II outlines the practical shortcomings of the new rhetoric: its failure to demonstrate the extent of the social problem that the manipulation of consumers allegedly creates, its failure to acknowledge existing legal mechanisms for remedying the manipulation of consumers and its failure to address any of the problems that a system of strict liability for products would create. Part III shows that, even apart from these failings, the fact that manufacturers manipulate consumers does not support adopting a system of EL. Such a reform would exacerbate manufacturers' abilities to over-play risk and sell an excess of safety. Part IV offers conclusions on the merits of EL in a world in which manufacturers attempt to manipulate consumers' beliefs about risk.

II. THE NEW RHETORIC: COGNITIVE PSYCHOLOGY AND EL

Research on the psychology of human judgment and choice has inspired a new critique of fault-based liability. This research sug-

26. See Hanson & Kysar II, *supra* note 19, at 1555-58.

gests that manufacturers can influence consumer decision-making.²⁷ Proponents of EL assert that tort law should recognize this influence and that such a recognition would undermine the justifications for the traditional role that fault plays in determining liability.²⁸

A. *Cognitive Psychology and Manufacturer Manipulation of Consumers*

Over the past half-century, psychologists have developed a model of human thought that describes the brain as a highly adaptive, but limited, information processor.²⁹ Incapable of fully processing all of the stimuli it encounters, the brain relies on cognitive shortcuts, or heuristics.³⁰ These heuristics work well in most circumstances, but can sometimes produce errors and illusions.³¹ Certain patterns of stimuli fool human visual perception, memory and judgment into seeing things that are not really present, remembering events that did not actually occur, and making erroneous decisions.³² People may try to make choices that are rational, but the brain's efforts to cope with information overload creates predictable patterns of mistakes.³³

For example, consider the problem people face trying to determine whether some technological activity creates a cancer risk. Specifically, imagine a couple, deciding whether to buy a house near high-tension power lines, who must judge whether such lines fall within the category of objects that pose a cancer risk for their children. Categorical judgments like this have been widely studied by psychologists.³⁴ These studies reveal that people make such

27. See Hanson & Kysar I, *supra* note 19, at 724-43.

28. See Hanson & Kysar II, *supra* note 19, at 1424-25.

29. See, e.g., Daniel Kahneman et al., *Judgment Under Uncertainty: Heuristics and Biases* (1982); Daniel Kahneman & Amos Tversky, *On the Reality of Cognitive Illusions*, 103 *Psychol. Rev.* 852 (1996).

30. See Amos Tversky & Daniel Kahneman, *Judgment Under Uncertainty: Heuristics and Biases*, 185 *Science* 1124, 1124 (1974).

31. See *id.*

32. See Jeffrey J. Rachlinski, *Heuristics and Biases in the Courts: Ignorance or Adaptation?*, *Or. L. Rev.* (forthcoming) (manuscript on file with authors).

33. See Jeffrey J. Rachlinski, *Gains, Losses, and the Psychology of Litigation*, 70 *S. Cal. L. Rev.* 113, 118 (1996).

34. See Amos Tversky & Daniel Kahneman, *Judgments of and By Representativeness*, in *Judgment Under Uncertainty: Heuristics and Biases* 84 (Daniel Kahneman et al. eds., 1982).

judgments primarily by assessing the degree to which the object or event in question resembles prototypes clearly within the relevant category, disregarding statistical evidence in the process. When the activity—here, the power company's maintenance of the power lines—appears superficially similar to the prototypes—operation of x-ray machines, for example—people judge the likelihood that the activity is in the category as high; when the activity does not seem similar to prototypes in the category, people judge the likelihood that the activity is within the category as low. Psychologists refer to this decision-making strategy as the *representativeness heuristic*.³⁵ In this example, if high-tension power lines strike most people to be similar (or analogous) to x-ray machines, against which lead shields are often appropriate protections, then such power lines will be believed to cause cancer.

The representativeness heuristic is a useful shortcut under most circumstances. The heuristic basically consists of assuming that if an animal looks like a duck, walks like a duck and quacks like a duck, then it's a duck. The problem is that this heuristic often leads to sloppy decision-making because it allows people to ignore the possibility that the so-called duck was drawn from a group of wildfowl that consist mostly of geese. To complete the example of the high-tension power lines, the couple might readily associate such lines with x-ray machines. The couple might also be suspicious of government reports that hazards "like this" are perfectly safe,³⁶ and might conclude intuitively that the tension lines simply have the look and feel of other technological sources of cancer. It might never occur to the couple to consult statistical studies of the correlation between living near such wires and the risk of contracting cancer.³⁷ Indeed, so strong is the heuristic that they might disbelieve available and otherwise credible studies showing power lines not to be cancer-causing.³⁸

Advertisers know well how to take advantage of the representativeness heuristic. For example, one widely run televi-

35. See Daniel Kahneman & Amos Tversky, *On the Psychology of Prediction*, 80 *Psychol. Rev.* 237 (1973).

36. See Paul Slovic, *Perceived Risk, Trust, and Democracy*, 13 *Risk Analysis* 675 (1993).

37. See Donald G. MacGregor et al., *Perception of Risks From Electromagnetic Fields: A Psychometric Evaluation of a Risk-Communication Approach*, 14 *Risk Analysis* 815, 827-28 (1994).

38. See *id.*

sion advertisement for an analgesic leads with an educated-looking man speaking to viewers about the benefits of the product. He lauds its ability to deaden pain more rapidly than competing products and announces that numerous statistical studies reveal that it is the most effective pain reliever available. In the end, however, he announces that he pays no attention to these studies, and asserts that he knows the product works because he uses it. Never mind how improbable it would be that he could properly conduct the kind of careful, unbiased self-observation required to identify the marginal benefits of the product accurately. He encourages viewers to rely on the observation that, after they take the pill, their pain will usually diminish.³⁹ Advertisements such as these take advantage of natural, but sometimes erroneous, decision-making strategies.

Heuristics aside, the brain frequently does not even attempt to assess the value of certain kinds of information in an organized, rational fashion. In this regard, the brain seems to have both a rational side, which is efficient but sometimes inaccurate, and an emotional side, which does not even attempt logical, ordered decision-making.⁴⁰ Certain stimuli elicit powerful affective responses, even without much higher cognitive processing.⁴¹ This affective response then guides subsequent cognitive processing, creating "motivated inferences."⁴² For example, one study reveals that people prefer hamburger described as "75% fat free" over a hamburger described as "consisting of 25% fat."⁴³ The phrase "fat free" seems to attract a positive feeling from consumers that translates into a

39. See Thomas Gilovich, *How We Know What Isn't So: The Fallibility of Human Reasoning in Everyday Life* 30-48 (1991) (describing people's tendency to rely too heavily on confirmatory evidence).

40. See, e.g., Antonio R. Damasio, *Descartes' Error: Emotion, Reason, and the Human Brain* (1994); Steven A. Sloman, *The Empirical Case for Two Systems of Reasoning*, 119 *Psychol. Bull.* 3 (1996); Robert B. Zajonc, *Feeling and Thinking: Closing the Debate Over the Independence of Affect*, in *Feeling and Thinking: The Role of Affect in Social Cognition. Studies in Emotion and Social Interaction*, Second Series 31 (Joseph P. Forgas et al. eds., 2000).

41. See Robert B. Zajonc, *Feeling and Thinking: Preferences Need no Inferences*, 35 *Am. Psychol.* 151, 154-56 (1980).

42. See, e.g., Ziva Kunda, *The Case for Motivated Reasoning*, 108 *Psychol. Bull.* 480 (1990); Ziva Kunda, *Motivated Inference: Self-Serving Generation and Evaluation of Causal Theories*, 53 *J. Personality & Soc. Psychol.* 636 (1987).

43. Irwin P. Levin & Gary J. Gaeth, *How Consumers Are Affected by the Framing of Attribute Information Before and After Consuming the Product*, 15 *J. Consumer Res.* 374 (1988).

more positive reaction towards the product, whereas the idea of a product being 25% fat seems inherently unappealing. Even those who undertake the extra cognitive processing required to reach the added inference that the 75% fat-free product actually consists of 25% fat do so in the shadow of the initial positive reaction.

It should come as no surprise that manufacturers self-consciously conform their marketing techniques to match the intricacies of human judgment and thought. Businesses spend huge sums each year on advertising.⁴⁴ Few believe that this spending is simply an attempt to inform or remind consumers of the availability of various products.⁴⁵ Competitive forces require that manufacturers press every means of selling their products.⁴⁶ Such means surely include exploitation of consumers' cognitive limitations and affective vulnerabilities.

In the two principal papers that review the psychological research supporting the new rhetoric, Professors Hanson and Kysar identify several ways that manufacturers have used cognitive biases to manipulate consumers' perception of or attentiveness to risk.⁴⁷ For example, they contend that because consumers generally overestimate their own abilities to keep themselves safe, manufacturers can run advertisements that play to people's beliefs that they can control random events.⁴⁸ They identify a television advertisement usually depicting a sport-utility vehicle miraculously dodging hazards such as rock slides and overturned trucks as one instance of such an effort.⁴⁹ They also assert that manufacturers trick people's risk assessments by ensuring that their memories include many vivid examples of a product's benefits and few examples of a product's downside risks.⁵⁰ As an example, they note that alcoholic beverage advertisements commonly provide memorable descriptions of the potential good times and fun that might accompany alcohol consumption, perhaps leading consumers to underestimate the problems also associated with alcohol.⁵¹ They also

44. See Hanson & Kysar II, *supra* note 19, at 1429-30 (reporting that businesses spend \$350 billion on advertising each year).

45. See *id.* at 1438-39.

46. See Hanson & Kysar I, *supra* note 19, at 726.

47. See *id.* at 721-43; Hanson & Kysar II, *supra* note 19, at 1428-67.

48. Hanson & Kysar I, *supra* note 19, at 729-30.

49. See *id.* at 730.

50. See *id.* at 731-32.

51. See *id.* at 731.

argue that manufacturers rely on hedonic associations to distract consumers from product risk.⁵² As an example, they point out the tendency for cigarette manufacturers to use young, attractive models in their advertisements, arguably to foster good feelings about cigarettes.⁵³

Although the extent of the problem that the new rhetoric purports to identify is unclear, it is almost certainly true that some manufacturers try to manipulate consumer's assessments of risk some of the time. Indeed, far from being a "provocative" thesis,⁵⁴ it seems almost obvious that manufacturers stand ready, willing and able to exploit human frailty to make a buck. Market forces ensure that if manufacturers can sell more of a product by manipulating consumer preferences, they will do so.⁵⁵

B. *The Manipulation of Consumers as an Argument Against the Fault-Based Liability Regime*

The new proponents of EL contend that the manipulation of consumers supports abandoning fault as the linchpin of liability in products cases involving generically hazardous products.⁵⁶ They assert that if the courts were to take the research on risk perception from cognitive psychology seriously, they would hold manufacturers strictly liable for all of the harm that their products cause, without regard to fault.⁵⁷ We disagree, but restate their arguments here.

1. *The Traditional Justification of the Role of Fault in Products Liability*

Identifying the effect that the manipulation of consumers has on manufacturer fault in products-liability law requires an understanding of why manufacturer fault plays such an important role in these cases. The principal benefit of the central role that fault plays in products cases is that it recruits both consumers and manufacturers as co-guardians of safety. Fault-based liability imposes

52. *See id.* at 732-33.

53. *See id.* *See also* Hanson & Kysar II, *supra* note 19, at 1471-73, 1479-83 (describing the tobacco industry's advertising strategies).

54. *See* Hanson & Kysar II, *supra* note 19, at 1428.

55. *See* Hanson & Kysar I, *supra* note 19, at 729-30.

56. *See* Hanson & Kysar II, *supra* note 19, at 1425-27.

57. *See id.*

liability on the parties—most often manufacturers or consumers—who can most effectively avoid accidents.⁵⁸ This effort comports with both fairness and efficiency. The party that could have most easily avoided the harm is intuitively the most responsible for that harm. Psychological studies of how people *allocate* blame supports this placement of liability.⁵⁹ Also, forcing parties to bear the harm that they could have avoided creates incentives for everyone to undertake cost-effective precautions.⁶⁰

Close scrutiny of the circumstances that typically lead to the harm products cause illuminates which party, manufacturer or consumer, is in the best position to avoid harm. Two variables are most relevant to determining when manufacturers should be liable: information about risk and consumer ability and motivations to act on that information.⁶¹ If consumers have perfect information about the risks products pose and are both inclined and able to act effectively on that information, then there is no reason to impose liability on manufacturers. Manufacturers, however, almost certainly know more about a product's risks than do consumers. The traditional fault-based system holds a manufacturer liable for failing to incorporate cost-effective safety precautions or for failing to warn consumers of known risks that the product poses.⁶² Even without considering the impact of advertisements designed to manipulate consumers, the tort system accounts for the disparity be-

58. See Landes & Posner, *supra* note 2, at 541-43. Although many scholars identify only two players—manufacturers and consumers—strictly speaking, there are at least three. In addition to users and manufacturers, one must consider the manager of the environment in which the consumer uses the product. The workplace provides a good example of this trilogy because understanding workplace accidents necessitates consideration of the role played by workers, the workplace machinery and the employers who are in charge of the environment of use. For a treatment of the dynamics of workplace interaction, see Henderson & Twerski, *supra* note 17, at 46-63.

59. There is an extensive psychological literature describing how people attribute cause and fault. See Susan T. Fiske & Shelley E. Taylor, *Social Cognition* 22-54 (1991). This literature shows that people attribute responsibility to the party whose actions can be mentally undone most easily, which typically, although by no means always, corresponds to the party who can most easily have avoided the accident. See Ziva Kunda, *Social Cognition: Making Sense of People* 143-58 (1999).

60. See *supra* note 17 and accompanying text.

61. See Guido Calabresi & Jon T. Hirschoff, *Toward a Test for Strict Liability in Torts*, 81 *Yale L.J.* 1055, 1060 (1972).

62. For a discussion on manufacturer liability resulting from failure to incorporate reasonable precautions, see Henderson & Twerski I, *supra* note 3, at 1329-31; Restatement (Third) of Torts: Prod. Liab. § 2 cmts. b, i.

tween manufacturer and consumer understanding of product-related risks.

Manufacturers know more about a product, but consumer behavior also affects the likelihood that a product will cause injury. Consumers can always defeat a properly designed product with their own negligent misuse. They can also ensure that they safely use a product that poses some inherent risks. Also, some consumers might be aware that even though a product is safe for most consumers, they should avoid it. Consumers would have no incentive to undertake their own precautions if manufacturers were forced to bear all of the cost of the harm that products cause.⁶³ Manufacturers are obviously better positioned to determine the optimally safe design, but consumers are probably in the best position to determine how to use the product safely or whether to use the product at all.

The traditional fault-based system of products liability law represents a careful balancing of responsibility between consumers and manufacturers. It holds manufacturers responsible for those things that they can best control—incorporating cost-effective safety precautions and providing warnings—and holds consumers liable for the rest. Courts have designed this allocation of liability to ensure that consumers and manufacturers are partners in reaching socially optimal levels of care. Except for generic risks that are scientifically unknowable at the time of sale, the existing system places liability on the manufacturer without regard to fault.⁶⁴

2. *Manipulation of Consumers and the Role of Fault*

The new proponents of EL argue that manufacturer manipulation of consumers' risk assessments casts new light on this tradi-

63. See Landes & Posner, *supra* note 2, at 540-43; Schwartz, *supra* note 23, at 356; Henderson & Twerski, *supra* note 17, at 271-301 (proclaiming that consumers bear a permanent responsibility to avoid harm while using manufactured products).

64. See Restatement (Third) of Torts: Prod. Liab. §1 cmt. a. In contrast, the relatively few consumers who do discover manufacturer defects are in a better position to act on it because at that point, the consumer becomes the most efficient cost minimizer. See Calabresi & Hirschhoff, *supra* note 61, at 1060. Interestingly, § 402A cmt. n, to the Restatement (Second) of Torts (1965), allowed manufacturers to use this consumer awareness as a defense to liability.

tional analysis of products liability.⁶⁵ Manufacturers might use marketing strategies that lead consumers to underestimate or ignore the dangers a product poses, thereby inducing consumers to purchase products that they might otherwise avoid, or to use products more dangerously than reason dictates. Manufacturers' power to manipulate consumers' decisions about risk suggests that manufacturers should bear greater responsibility for consumers' decisions regarding whether to purchase a product and how to use it.

Manufacturers' manipulation of consumers suggests a basic flaw in the justification for retaining manufacturer fault as the linchpin of liability in products cases. It suggests that manufacturers are more responsible for consumer behavior than existing law assumes. As one example of how this observation might affect the analysis of the interplay between manufacturers and consumers, consider the role that warnings play in products cases. As Professor Latin has noted, cognitive psychology suggests that manufacturers can remain immune from liability by placing warnings on products while simultaneously undermining the effect of these warnings.⁶⁶ The inclusion of the warning arguably satisfies the manufacturer's obligations under existing law even though the consumer actually ignores the warning. In any subsequent lawsuit filed by an injured consumer, the manufacturer can simply point to the warning and say cynically, "See, I told you so."

More generally, to the extent that manufacturers can induce consumers to underrate the risks a product poses, consumers will believe the product is less costly than is the case.⁶⁷ Whether the manufacturer warns consumers about a particular risk, or whether the courts consider the risk known and obvious, the manufacturer might be able to sell more of a product by convincing consumers that the product is not dangerous. Lured by the potential for increased product sales, manufacturers might be induced to engage in advertising strategies that lead to socially inefficient patterns of product consumption.

Distracting consumers from the real risks products pose could have two types of unwanted social consequences: it might under-

65. See Hanson & Kysar I, *supra* note 19, at 635-38; Hanson & Kysar II, *supra* note 19, at 1424-25.

66. See Latin, *supra* note 19, at 1232-43.

67. See Hanson & Kysar I, *supra* note 19, at 729-30.

mine consumers' efforts to take precautions against harm and it might attract "high-risk" consumers to products that they should avoid. As to the first effect, manufacturers might use advertising to induce consumers to use products in ways that are inordinately dangerous, as part of an effort to make the product seem safer and more useful than is really the case.⁶⁸ For example, automobile manufacturers' emphasis on the crashworthiness of their products could induce consumers to drive recklessly. As to the second effect, manufacturers might run advertisements that tempt consumers—who know themselves to be inefficiently high-risk users of a product—with the product, as part of an effort to increase the number of consumers interested in using a product.⁶⁹ If these high-risk consumers disregard the dangers a product poses, then these "inefficient consumers" would be willing to use the product. For example, cigarette manufacturers' efforts to associate cigarettes with positive (particularly sexual) imagery might induce adolescents to take up smoking, even though smoking at an early age is especially harmful and makes it particularly difficult to quit smoking later in life.

In effect, the new proponents of EL attempt to up-end the traditional arguments that support the role of fault in products cases. As stated above, the traditional arguments hold that consumers must bear the risk of harm caused by safely designed products so that consumers will undertake precautions and will avoid products if they are high-risk consumers. If manufacturers influence consumer behavior as much as the new proponents of EL claim, however, then manufacturers are responsible both for product design, *ex ante*, and for consumer behavior, *ex post*.

The arguments made by the new proponents of EL also sidestep long-standing debates concerning whether consumers naturally underestimate or overestimate risk.⁷⁰ Hanson and Kysar contend that manufacturers will seek out and exploit advertising techniques that cause consumers to underestimate the risks that products pose. Even if some circumstances naturally lead consumers to overestimate risk, manufacturers will work to minimize these circumstances and implement advertising campaigns that have the opposite effect. Thus, whatever peoples' natural proclivi-

68. *See id.* at 730.

69. *See* Hanson & Kysar II, *supra* note 19, at 1461-62.

70. *See* Hanson & Kysar I, *supra* note 19, at 723-24.

ties—underestimation or overestimation of risk—the new proponents of EL argue that manufacturers will find and exploit the conditions that produce underestimation.

The new proponents of EL argue that EL provides the *only* reliable cure for the adverse consequences of the manipulation of consumers.⁷¹ They complain that manufacturers generally escape liability for their marketing campaigns and thus face inadequate incentives to account for the social harm that their products cause.⁷² As a result, they contend, traditional fault-based liability allows, and competition requires, manufacturers to engage in advertising campaigns that lull consumers into a false sense of security, thereby increasing sale and consumption of their products.⁷³ Because EL would impose all product-related harm on manufacturers, it would force manufacturers to worry about both consumers' behavior after purchase and whether high-risk consumers should be purchasing the product in the first instance. EL's new advocates argue that the system would give manufacturers incentives to try to inspire consumers to use the products in reasonable ways after purchase and incentives to try to avoid selling their products to high-risk consumers.⁷⁴

III. PRACTICAL OBJECTIONS TO THE NEW RHETORIC

The new proponents of EL have left several intellectual gaps in their argument, both practical and theoretical. In this section we identify practical points they have failed to seriously address: first, they have not even attempted to quantify the social problem they purport to identify; second, they have failed to consider the possibility that their observations about advertising are well-known to courts and regulators, who have already adopted sensible reforms to address these effects; third, their argument does no more than add rhetorical support for EL while doing nothing to address the fatal flaws that would plague an EL system.

71. *See id.* at 747-49; Hanson & Kysar II, *supra* note 19, at 1555-58.

72. *See* Hanson & Kysar I, *supra* note 19, at 747-48.

73. *See id.* at 730.

74. *See* Hanson & Kysar II, *supra* note 19, at 1555-58.

A. *EL's New Proponents Provide no Estimate of the Extent of the Problem Allegedly Posed by the Manipulation of Consumers*

EL's new proponents do not clearly identify the extent of the problem that manufacturers' attempts to manipulate consumers allegedly create. Hanson and Kysar, in a pair of articles, provide the most extensive documentation of the potential problem. These papers, however, provide only anecdotal examples to illustrate the existence of manufacturer manipulation of consumers.⁷⁵ The examples Hanson and Kysar identify in support of their claims actually suggest only that manufacturers *attempt* to manipulate consumers; they reveal little or no evidence of the success of these efforts. There are several good reasons to suppose that manipulating consumer risk perceptions is extremely difficult, despite the influence cognitive biases have on these estimates. First, many cognitive processes operate against consumption—the status quo generally runs against purchasing a new product. Second, manufacturers must also compete against manufacturers of other products for consumers' limited budgets. Finally, for manufacturers to manipulate consumers successfully, they must command consumers' attention; advertising may be ubiquitous, but it is also easily ignored by media-savvy consumers who have learned how to disregard advertising.⁷⁶

EL's new advocates could argue that the widespread consumption of dangerous products such as cigarettes, alcohol, firearms and motor vehicles provides ample evidence of the success of these marketing campaigns.⁷⁷ Such an argument, however, would be misplaced. These products all confer some benefits upon the users.⁷⁸ Even without manipulative advertising, many consumers would surely purchase them. More importantly, the new propo-

75. The authors admit as much. See Hanson & Kysar I, *supra* note 19, at 748 ("These examples . . . are, of course, only anecdotal").

76. See Carla V. Lloyd, *Advertising Media: A Changing Marketplace*, in *The Advertising Business: Operations, Creativity, Media Planning, Integrated Communications* 89, 89-93 (John Philips Jones ed., 1999).

77. They do so with cigarettes. See Hanson & Kysar II, *supra* note 19, at 1471.

78. Even cigarettes, despite their many costs, confer some benefits on their users. See generally W. Kip Viscusi, *Smoking: Making the Risky Decision* 5-15 (1992) (discussing, the factors contributing to people's perceptions of risk in regard to smoking).

nents of EL do not demonstrate that these products enjoy success because the manufacturers used advertising to hide the risks products pose, as opposed to any other marketing technique. Advertising has many goals other than manipulating consumer preferences or beliefs about the risks that products pose.

Hanson and Kysar's own review of examples of market manipulation is telling on this point. In addition to their detailed account of cigarette advertising, we identify thirty-eight specific examples of advertisements they claim are designed to manipulate consumers. Of these, even by a generous count, only seven have anything to do with hiding the risks products pose.⁷⁹ The other thirty-one are simply efforts to sell more of a product through the use of such tactics as rebates, clever pricing or ambience at point-of-sale.⁸⁰ In fact, of these thirty-one, seventeen do not even rely on

79. They identify the following: (1) safety caps and medications are arguably designed to lull consumers rather than protect them, *see* Hanson & Kysar I, *supra* note 19, at 725; (2) Sport-utility-vehicle commercial suggesting it lends the ability to control uncontrollable risks, *see id.* at 730; (3) alcohol advertising showing only people having good times, *see id.* at 731; (4) safe-looking packaging as a way of anchoring consumers on the idea that the product is safe, *see id.* at 731-32 (they identify a fairly tenuous relationship between this advertisement and the psychological phenomenon of anchoring); (5) identifying a product in percent fat-free rather than percent fat as taking advantage of framing effects, *see* Hanson & Kysar II, *supra* note 19, at 1451. We count the following two as close to the idea that manufacturers are seeking to distract consumers from dangers products pose, but are arguably just efforts to make the product seem tasty and appealing: (6) using small packaging for unhealthy products as a way of letting consumers feel that they are retaining some control over their consumption of the product, *see* Hanson & Kysar I, *supra* note 19, at 735; (7) Häagen Dazs' use of an umlaut in the word "Exträas" for its new high-fat ice cream, *see* Hanson & Kysar II, *supra* note 19, at 1435 (it is not clear what the point of the umlaut or the misspelling is, but it may be to make the unhealthfully high fat content seem appealing; we suggest that these gimmicks are merely efforts to remain consistent with the company's overall, pseudo-Teutonic product branding).

80. These include seventeen generic efforts to sell more products unrelated to risk: (1) money-back offers as a way of creating an attachment to the product, *see* Hanson & Kysar I, *supra* note 19, at 734; (2) visceral associations with products, such as delicious-looking close up photographs, *see id.* at 738; (3) late-night television offers for groups of products, announcing, "but wait, there's more," *see id.* at 740; (4) banks' use of a minimum balance for no fee checking even though cost of checking is less than opportunity cost of the money in the account, *see id.* at 742; (5) Contact cold medication capitalizing on consumers' fear of losing their job because they must take time off due to illness, *see* Hanson & Kysar II, *supra* note 19, at 1463; (6) sugarless gum (rather than sugared gum) put at child-level near check-out, which attracts kids just as much and assuages parents angered by the market's insidious efforts to sell gum to their kids, *see id.* at 1437; (7) contrast effects and car choices, *see id.* at 1440; (8) artificially high sticker price to take

advantage of anchoring effects (possibly framing as well), *see id.*; (9) discounts for cash payments rather surcharges for credit, *see id.* at 1441; (10) prices ending in the nines, *see id.* at 1441-42; (11) "invisible" \$0.009 at gas stations, *see* Hanson & Kysar II, *supra* note 19, at 1442; (12) home sales and not-so-round prices, *see id.* at 1442-43; (13) ambience effects in supermarkets and other retail (such as use of Muzak, product placement, store lighting, fake aromas, etc), *see id.* at 1445-46; (14) low pricing of staples, such as milk and eggs, in supermarkets to attract consumers and convince them it is a bargain store, *see id.* at 1449; (15) raise prices by "just noticeable difference" to consumers, *see id.*; (16) discount specials in supermarkets as attractions to the store, *see id.* at 1449-50; (17) Nestle's campaign to sell baby formula in less-developed countries by advertising indicating that it was best for children, *see* Hanson & Kysar II, *supra* note 19, at 1464 (we do not count this as distracting from product risk as the product risk was that of misuse-heavy dilution of the product).

They also identify fourteen instances of outright deceptive advertising that have nothing to do with psychology: (1) Uno's "low-fat" pizza that was actually high in fat, *see id.* at 1452; (2) Mazola's claim that eating chicken fried in Mazola reduced serum cholesterol, *see id.*; (3) Campbell's claim that their "soup is good food", even though it is high in sodium, *see id.*; (4) Chewing Wrigley's gum ameliorates indigestion, *see id.* at 1453; (5) Gerber's claim that four out of five pediatricians prefer Gerber baby food, which excludes physicians that do not recommend baby food, *see id.*; (6) host of unsubstantiated claims concerning the health benefits of vitamins sold by General Nutrition, Inc., *see* Hanson & Kysar II, *supra* note 19, at 1453; (7) Quaker oat bran's unsubstantiated claim that it reduces the risk of heart attacks, *see id.* at 1452; (8) McDonald's claim that their french fry packaging was recyclable, even though it was not, *see id.* at 1460; (9) Mr. Coffee's claim that it had stopped using chlorine when it switched to a chlorine-based compound, *see id.* at 1460; (10) Orkin's false claims about the lack of toxicity of an insecticide, *see id.*; (11) Proctor and Gamble's claim that a diaper was recyclable, even though it would be nearly impossible to recycle, *see id.* at 1460; (12) Saab's unfounded claim that its catalytic converter reduced "ozone-punching hydrocarbons," *see* Hanson & Kysar II, *supra* note 19, at 1460; (13) gasoline manufacturer's continued selling of useless, but expensive, high-octane fuel, *see id.* at 1444-45; (14) unjustifiable safety claims by Volvo, *see id.* at 1466. We also did not count several examples as either instances of distraction from risk or of psychological efforts to sell products unrelated to risk. These include the numerous efforts pharmaceutical companies make to induce physicians to prescribe their products, *see id.* at 1457-59, as this seems like outright bribery, or at least has a more complicated agency problem associate with it. Also their general claim that fast cars, rollerblades, and extreme sports are marketed to the 25% of the population that consists of "thrillseekers" lacked substantiation, *see id.* at 1461. We likewise did not count the NRA's efforts to sell guns to women by showing scary scenes of women alone in dark alleys, *see id.* at 1463-64, because the NRA is not a manufacturer and does not sell guns; this was doubtless an effort to attract members. We did not count the reference to Professor Christopher Hsee's work on comparability, *see* Hanson & Kysar I, *supra* note 19, at 735, as their use of it was unclear and not tied to a specific advertisement strategy that we could recognize. Finally we did not count their assertion that manufacturers try to seem cooperative and fair because consumers prefer to buy from people that are cooperative and fair, *see id.* at 737, 741, as it seemed trivial and no specific examples were provided other than an assertion that this keeps manufacturers from price-gauging. As noted in the text, advertising campaigns by cigarette man-

psychological principles—they are simply examples of false advertising. It is unclear from the string of examples how much of the \$350 billion advertisers spend each year is spent on manipulating perceptions of risk. Although they “invite the reader to draw from her own experience as a consumer”⁸¹ to supplement these examples, we suspect that most readers who do so will also identify examples of deception or manipulation unrelated to product risk and even unrelated to psychological principles.

Despite their efforts, EL’s new proponents have not identified many examples of advertisements that actually use psychological principles to successfully deceive consumers about product risk. Hanson and Kysar claim that they were also initially skeptical of the power of manufacturers to manipulate consumer risk preferences, but began to be swayed upon learning “that the manufacturer of Campbell’s Soup knows, as an empirical fact, that placing soup cans *out* of alphabetical order on store shelves will increase sales by exactly six percent.”⁸² While fascinating, we cannot fathom how observations like this support radical reform of the products-liability system. If courts are to adopt the kind of drastic change in the legal system that EL represents, they need better evidence that the problems resulting from manipulation of consumers are more than anecdote and conjecture.

B. *Existing Products Liability Law is More Sensitive to the Manipulation of Consumer Biases than the Proponents of EL Recognize*

The new proponents of EL contend that EL is the *only* way to remedy the manufacturer manipulation of consumers.⁸³ They complain that existing tort law relies too heavily on the efficacy of product warnings; they assert that when legally adequate warnings are given, manufacturers are effectively immune from liability for harm caused by generic product risks and are free to manipulate biases for their own benefit. Because these manipulations cannot be monitored by “command and control” regulation (manufacturers can be kept “honest” in regard to their marketing tactics),

ufacturers largely support their thesis, and, in fact, probably provide the best support for it. See Hanson & Kysar II, *supra* note 19, at 1467-1553.

81. Hanson & Kysar I, *supra* note 19, at 638.

82. *Id.* at 748.

83. See *id.* at 723-24; Hanson & Kysar II, *supra* note 19, at 1555-58.

only by internalizing all costs of injury associated with product use and consumption. These contentions understate the existing legal responses manufacturers' attempts to manipulate consumers. Both tort law and consumer protection statutes already respond to manufacturer attempts to manipulate consumers.

1. *Courts Have Recognized Manufacturers' Efforts to Manipulate Consumers and Have Adjusted Tort Doctrines to Respond to It*

Existing tort remedies are more sensitive to manufacturers' attempts to manipulate consumers than the new proponents of EL suggest. For example, in the product area upon which proponents of EL focus most of their attention—cigarette-related injuries—the bases of manufacturers' liability have been extended far beyond failure-to-warn. (Indeed, traditional state law failure-to-warn claims are now largely preempted by federal regulations.⁸⁴) A panoply of other theories based on the marketing of cigarettes is available to products liability plaintiffs, some of which clearly reflect growing judicial concern with manufacturers' manipulation of consumers' cognitive biases.⁸⁵ The recent global settlements of actions by state Attorneys General contain explicit commitments on the part of cigarette manufacturers to curtail efforts to manipulate consumers via advertising, especially efforts to entice young persons to begin smoking.⁸⁶

Existing law reflects the fact that courts are well aware of manufacturers' efforts to negate the beneficial effects of otherwise reasonable product designs and warnings. The recently promulgated *Restatement of Products Liability* explicitly recognizes that, in connection with a manufacturer's obligation to provide adequate designs and warnings, public appreciation of product-related risks should not be undermined by advertisements that encourage risky

84. See Henderson and Twerski, *supra* note 17, at 395-96 (citing Cipollone v. Liggett Group, Inc., 505 U.S. 504 (1992), as the leading example of federal regulatory preemption).

85. See Cipollone v. Liggett Group, Inc., 505 U.S. 504 (1992) (providing examples of the theories of express warranty, fraudulent misrepresentation and conspiracy to defraud.).

86. See Master Tobacco Settlement Agreement, available at <http://www.cnie.org/nle/ag-55.html> (last visited Dec. 18, 2000).

consumer behavior.⁸⁷ Thus, the new *Restatement* speaks directly to the potential of advertising to manipulate consumer perceptions and behavior and admonishes courts to be alert to these possibilities in assessing the adequacy of product designs and warnings:

[C]onsumer expectations about product performance and the dangers attendant to product use affect how risks are perceived and relate to foreseeability and frequency of the risks of harm, both of which are relevant under [this *Restatement*.] Such expectations are often influenced by how products are portrayed and marketed and can have a significant impact on consumer behavior.⁸⁸

Moreover, the new *Restatement* incorporates a significant change from an earlier, contrary position in the *Restatement, Second, of Torts*. Earlier, courts tended to weigh product warnings heavily, not reaching the question of adequate product design when warnings appeared adequate.⁸⁹ The new *Restatement* recognizes that the design question should come first, precisely because warnings are capable of being undermined by subtle but effective advertising. The *Restatement* makes clear that, with regard to generic risks posed by durable products, a manufacturer's primary duty is to adopt reasonable product designs rather than to warn against the risks.⁹⁰ An important factor in determining reasonableness in this regard is "the nature and strength of consumer expectations regarding the product, including expectations arising from product portrayal and marketing."⁹¹

Judicial decisions reflect this sensitivity to the power of manufacturers to manipulate consumers' cognitive biases via advertising. For example, the Ohio Supreme Court affirmed a plaintiffs' judgment based on the defective design of an all-terrain vehicle, citing the manufacturer's marketing efforts.⁹² The plaintiffs were injured when they drove such a vehicle off the top of a ridge, flew

87. See generally *Restatement (Third) of Torts: Prod. Liab.* § 2 cmts. a-g (supporting the position that even though consumer expectations cannot stand alone as evidence of product defectiveness, courts must consider the influence of advertising when determining how consumers perceive risk and thus, determine the foreseeability of harm).

88. *Restatement (Third) of Torts* § 2 cmt. g.

89. See *Restatement (Second) of Torts* § 402A cmt. j.

90. See *Restatement (Third) of Torts* § 2 cmt. l.

91. *Id.* at § 2 cmt. f.

92. See *Leichtamer v. American Motors Corp.*, 424 N.E.2d 568, 579 (Ohio 1981).

almost fifty feet through the air and landed upside down near the bottom of a slope twenty-five feet below. The plaintiffs argued at trial that the defendant-manufacturer's advertising induced such dangerous user behavior, and that the roll bars should therefore have been designed to withstand the great forces put upon them. The court concluded:

Cited as exemplary of this "intentional incitement of unlawful conduct" was the sound track employed in the Jeep television commercials: "My Jeep CJ is the toughest rig around"; "That's Jeep guts—Guts to take you where you have never been before"; "CJ-5—will give the young couples the ride of their lives on the dunes and gutsy ground steering"; "All right, which one of you guys is going to climb that big old hill with me? I mean you guys aren't yellow, are you? Is it a steep hill? Yeah, little lady, you could say it's a steep hill. Let's try it. The King of the Hill is about to discover the new Jeep CJ-7"; "That Jeep four-wheel drive is tough enough to go anywhere." . . . The television commercials relied upon by the [court below] demonstrated an off-the-road use. The commercials are relevant to the foreseeable use of the vehicle and the unreasonable danger of the product when used as intended.⁹³

Courts have followed this same path in cases involving consumables such as prescription drugs.⁹⁴ Furthermore, leading products liability texts and law review articles recognize these considerations and argue that courts should be sensitive to them.⁹⁵

2. *Command-and-Control Regulation of Marketing*

Consumer protection regulations at the state and federal levels also constrain manufacturers' abilities to manipulate consumers. Federal law forbids manufacturers from making claims that are "unfair or deceptive,"⁹⁶ which is defined to include any marketing practices that "cause[] or [are] likely to cause substantial injury to consumers."⁹⁷ Although vague, these prohibitions

93. *Id.* at 579.

94. See *Stevens v. Parke, Davis & Co.*, 507 P.2d 653, 662 (Cal. 1973).

95. See generally Henderson & Twerski, *supra* note 17, at 469-72 (including a postscript on other forms of defective marketing); Richard W. Wright, *The Efficiency Theory of Causation and Responsibility: Unscientific Formalism and False Semantics*, 63 Chi.-Kent L. Rev. 553 (1987) (clarifying the relationship between causation and responsibility in tort law).

96. 15 U.S.C. § 45(a)(1) (1995).

97. 15 U.S.C. § 45(n) (1995).

give the Federal Trade Commission broad authority to police manufacturers' marketing practices for activities that will mislead consumers in harmful ways. Indeed, many of the examples of manufacturer manipulation of consumers that Hanson and Kysar identify have been targets of enforcement actions by the Federal Trade Commission.⁹⁸ Manufacturers' efforts to manipulate consumers have not escaped the notice of the lawmakers and regulators.

The proponents of EL appear to believe that these regulatory efforts to develop command-and-control regulation of advertising are doomed from the outset.⁹⁹ They contend that regulators only inadequately identify instances in which manufacturers commit outright fraud and it would be impossible for regulators to identify manufacturers subtle, but effective, manipulation of consumers' beliefs.¹⁰⁰ They assert that manufacturers are not fully aware of how their marketing practices actually work to sell their products,¹⁰¹ and hence, regulators could not possibly identify all forms of deception.

We concede that with a \$350 billion annual marketing budget, manufacturers and retailers will almost certainly outpace regulatory efforts to develop, *ex ante*, an effective set of command-and-control restrictions on advertising. Nevertheless, the breadth of the statutory authority held by the Federal Trade Commission allows it to conduct *ex post* assessments of marketing practices that deceive and harm consumers. A manufacturer might be able to use focus groups and other marketing research techniques to circumvent any command-and-control regime, but they risk subsequent enforcement authority when consumers begin to feel the consequences of these practices. Consumers who are duped into buying risky or unwanted products can and do complain to the Federal Trade Commission. The Commission has made it easier to lodge complaints as consumers can now even file them on-line.¹⁰² Thus, marketing campaigns are evaluated *ex post* for their decep-

98. Hanson & Kysar II, *supra* note 19, at 1452-60.

99. *See id.* at 1556.

100. *See id.*

101. *See* Hanson & Kysar I, *supra* note 19, at 743-44.

102. *See* Federal Trade Commission Consumer Complaint Form, *available at* <http://www.ftc.gov/ftc/complaint.htm> (last visited Dec. 18, 2000).

tive content, so that even if *ex ante* regulation is inadequate, manufacturers might still be deterred from deceptive practices.

C. *The Unworkability of EL*

The new rhetoric supporting EL also makes no effort to address the many problems that beset systems of strict liability. Although referred to as a liability system by its proponents, EL would function, at its core, as an insurance scheme. It would require manufacturers to compensate those injured by products for any harm that befalls them. This would presumably induce manufacturers to invest in accident-loss avoidance up to, but not beyond, the point where it is cheaper to insure against liability for residual accident losses. The combined costs of loss avoidance measures and insurance against residual losses would presumably be reflected in the market prices of the manufacturers' products. Thus, EL more closely resembles an insurance/compensation system, such as worker compensation, than it resembles a liability system.

On its face, substituting an insurance regime for a liability regime is not troublesome. According to the new proponents of EL, such an adjustment would ensure that the prices manufacturers charge consumers would include the cost of residual accident losses, thereby undercutting manufacturers' incentives to deceive consumers about safety. Such a conclusion, however, ignores basic mechanics of any insurance scheme and fails to address fundamental questions about when a product "causes" a particular harm.

1. *EL as an Insurance Scheme*

Insurance involves the transfer of risks of loss from insureds to insurers and the pooling of those risks by the latter to predict the projected aggregate losses incurred by the former.¹⁰³ Insureds pay predetermined premiums into the risk pools and insurers pay out of the pools for covered losses when they occur. For any insurance system to remain viable, several conditions must be satisfied: the risks insured against must be ascertainable *ex-ante*, at the time of risk-pool formation¹⁰⁴ and the covered losses must be ascertainable *ex-post*, at the time claims are made against the

103. See Kenneth S. Abraham, *Insurance Law And Regulation 2* (2000).

104. See Kenneth S. Abraham, *Distributing Risk* 46-47 (1986).

pool.¹⁰⁵ Moreover, insureds must be charged premiums that more or less accurately reflect their individual contributions to the risk pools which they are aggregated.¹⁰⁶ Individual insureds will eventually experience actual losses that are not necessarily proportional to the premiums such insureds paid earlier. But the premiums charged at the time of original contracting must reflect the risks that each insured presents at that time and each insured must be constrained by the terms of coverage from significantly increasing the risk thereafter.

This process of "risk classification," whereby premiums are made proportional to insureds' contributions to risk pools combats two major threats to the viability of insurance pools: adverse selection and moral hazard.¹⁰⁷ Adverse selection reflects the tendency of insureds who present disproportionately higher risks of loss to enter and remain in risk pools when they are charged premiums that do not adequately reflect the projected losses generated by those higher risks—when they are undercharged relative to other, lower-risk insureds. When this occurs, lower-risk insureds (who are presumably aware that they are being concomitantly overcharged) will exit the risk pools, resulting in the need for a general increase in premiums charged to those remaining. If higher-risk insureds continue to be undercharged, relatively lower-risk insureds, measured at any given point in time, will continue to exit the risk pool, requiring further premium increases, and so on. This "unraveling" process will, if left unchecked, eventually destroy the integrity of any insurance system.¹⁰⁸

The same negative effects occur when insureds are allowed, without jeopardy under the relevant terms of coverage, to increase their risks of covered losses by actions engaged in after entering insurance contracts. This is known as a "moral hazard."¹⁰⁹ Those insureds who are able to take such actions will wind up paying less than they should for coverage, leading over time to premium increases that drive lower-risk insureds out of the relevant insurance pools. Moral hazards arise after the creation of the insurance con-

105. See *id.* at 4.

106. See *id.* at 2.

107. See *id.* at 3-5.

108. See *id.* See also George L. Priest, *The Current Insurance Crisis and Modern Tort Law*, 96 *Yale L.J.* 1521 (1987) (discussing an application to the operation of tort liability).

109. See Abraham, *supra* note 104, at 4.

tract. In contrast, adverse selection occurs before the fact of contracting for insurance. Any system of insurance must adequately minimize both adverse selection and moral hazard if it is to remain viable.

A combination of adverse selection and moral hazard would overwhelm any EL plan of the sort envisioned by its proponents, especially with regard to durable products. Assuming that allocations of the underlying premium charged to purchasers at the time of sale for insurance against product-related losses would not differentiate among purchasers, and that additional insurance charges could not be imposed on purchasers or users post-sale, those engaging in relatively high levels of risky product usage would be attracted to the no-fault insurance program because they would be undercharged relative to low-risk users. Adverse-selection effects would be exacerbated by moral hazard in the form of post-sale adjustments in product usage that would increase the aggregate product-related accident losses.

In contrast, those engaging in relatively lower levels of low-risk product usage, would be overcharged by EL, and would, to the extent possible, avoid participating in the insurance program. Several major avenues of escape for low-risk consumers would be available. In connection with privately owned and operated motor vehicles, for example, various forms of public transportation would become more attractive. The useful lives of all motor vehicles would be extended significantly through elaborate programs of repair and rebuilding, thereby reducing the per-usage costs of the time-of-sale-only EL insurance charge. (Interestingly, owners of used vehicles already in use at the inception of the EL regime, who would escape the time-of-sale insurance charge on subsequent sales of new vehicles, would enjoy a windfall as the value of their vehicles rose in used-vehicle after-markets.) As EL premiums on new-vehicle sales rose over time to reflect the upward trend of loss experience, the EL insurance pools for new vehicle sales would unravel to the point that they would eventually reflect only the costliest patterns of vehicle usage. To be sure, equilibria would sooner or later be reached, short of across-the-board collapse, because consumers in general would be forced to continue to buy and consume new durable products at some levels, quite apart from insurance costs. Where such equilibria would be reached cannot be fathomed. But one conclusion appears unavoidable: adoption of EL

for multi-variable, "synergistic" product risks presented by durable products would lead to profound and unintended social consequences that would almost certainly fail to achieve the intended objective of increased product safety.

2. *EL Creates Novel Causation Issues*

EL also creates novel administrative problems regarding whether a product can be said to be the legal cause of a particular injury. A concrete example makes this point most clearly. Assume the following sequence of events: a victim-to-be is driving an automobile while intoxicated, swerves to avoid a skate-boarder interfering with traffic, loses control of the automobile, breaks through a traffic barrier and collides violently with a tractor-trailer parked by the roadside. Against which EL insurance pool would a claim for the victim's injuries appropriately be brought? The automobile's EL insurance pool? The alcoholic beverage's? The skate board's? The traffic barrier's? The tractor trailer's? Some of the above? All of the above? If several, or all, of the relevant insurance pools were implicated, on what conceptual basis would responsibility be apportioned?

Existing products liability law provides consistent answers to these questions of proximate causation based on a combination of traditional legal concepts which include product defect, individual fault and proximate causation.¹¹⁰ A system of EL, having abandoned all of these legal constructs as the outmoded and inadequate trappings of "command and control" regulation, would flounder hopelessly.

110. See Henderson & Twerski I, *supra* note 3, at 1286. In a critique of EL, one of the authors observed:

[T]he product liability system relies on the defect concept for cohesion. The defect requirement is more than merely a convenient stopping place on a smooth continuum running from "less" to "more" liability. The defect concept, in helping to define the compensable event, frames the nature of the plaintiff's underlying entitlement. Even seemingly neutral, factual issues of causation become incoherent unless they remain anchored to some adequately articulable basis on which the plaintiff's rights rest. Thus, any across-the-board attempt to abandon the requirement of defectiveness would place courts and the products liability system in total chaos.

Id. Indeed, elsewhere in the article, the author refers to defect as the "conceptual linchpin" that holds products liability law together. See *id.* at 1267.

3. *An Exception Where Strict Liability Is Less Troublesome*

For some types of products, a strict liability insurance regime such as EL can be more workable. Some product-related risks confront the consumer with a "take it or leave it" choice to either use or consume the product, thereby exposing herself to the risk of injury or avoiding the risk altogether. Once use or consumption occurs, the risk of harm cannot cost-effectively be reduced by the consumer's conduct. These harms are akin to spinning a kind of negative "roulette wheel"; the product leaves most consumers unharmed, but visits great harm upon some unfortunate individual, through no fault of their own. Each consumer, in the words of a carnival pitchman, "pays her money and takes her chances."

The clearest example of a product-related risk that fits this description is the risk that a new product contains a manufacturing defect that, during use or consumption, causes injury. The chances of any new product unit containing such a defect are fixed and quite ascertainable at the time of sale. The chances that the defect will cause injury are also fixed and ascertainable at the time of sale and cannot be cost-effectively reduced by the user's or consumer's post-sale conduct. Other examples include the risk that a manufacturing defect will cause the steering of a new motor vehicle suddenly to fail, or a wood lathe suddenly and forcefully to release a spinning piece of wood, causing personal injury.¹¹¹ Products liability has, for decades, recognized the underlying nature of manufacturing defects and imposes liability on the manufacturer for all such defects, regardless of the manufacturer's fault.

Some products also present an inherent risk of injury, shared by all other units of similar design, that causes harm to randomly selected users or consumers irrespective of the manner in which the product is used or consumed. Most of these cases involve consumables that cause negative side effects in a relatively small percentage of consumers whose identities cannot be ascertained

111. For more on these classic products liability cases, see generally Greenman v. Yuba Power Prod., Inc., 377 P.2d 897 (Cal. 1963) (holding that a plaintiff who brought suit for injuries sustained while using a wood lathe, was allowed to recover for his injury by the defective product without proving that the manufacturer was negligent in providing adequate quality control in making the product); Henningsen v. Bloomfield Motors, Inc., 161 A.2d 69 (N.J. 1960) (eliminating privity as a requirement for suit by holding that a plaintiff injured while driving a car purchased by her husband, could recover for crash related injuries caused by the steering system's failure).

before the fact of accidental injury. Assuming that a consumer has knowledge of the relevant risks, the only meaningful choice is whether or not to consume the product and thereby take the chance of injury. Examples include the risk that smoking cigarettes may cause life-threatening diseases or that ingesting prescription drugs may cause harmful side effects.

These "roulette-style" injuries are more amenable to a strict liability insurance scheme than those product-related injuries caused by the interplay of the consumer and the manufacturer. The relevant risks presented by such products are known at the time of sale and problems of causation, at the time of accidental injury, are relatively manageable. Moreover, adverse selection is contained by the fact that both the risk of defect and the projected severity of physical injury in connection with new product use or consumption are essentially identical for all users and consumers. Thus, supporting the payment by each purchaser of the same pro-rata portion of the underlying insurance premium at time of sale. Individual purchasers present different monetary values regarding the interests placed at risk. In theory, this necessitates a variable premium-allocation structure in order to avoid adverse selection in the form of over-purchase of relatively risky products by relatively productive, higher-income consumers and under-purchase by relatively less productive, lower-income consumers. In any event, once new products are purchased and used or consumed, users and consumers have no significant control over the risks posed by manufacturing defects. This significantly reduces, if not eliminates, the threat of moral hazard.

4. *Summary on the Workability of EL*

The point here is not that the existing products liability system responds perfectly to any adverse consequences of manufacturer marketing campaigns. We concede that economic forces induce manufacturers to undertake marketing campaigns that which have adverse social consequences that escape remedy under the existing legal regime. Our point, however, is that the existing liability system does a much better job in this regard than EL proponents give it credit for, and that it is becoming more sensitive over time. Moreover, even if command-and-control regulations do not achieve all that EL does in theory, at least the existing products liability system is reasonably effective on its own terms. In

contrast, whatever attractiveness EL may have as a purely theoretical construct, the absolute manufacturers' liability that it calls for could never be made to function as a practical matter.¹¹² Thus, even if, in abstract theory, a system of EL for generic product risks would be superior to existing command-and-control regulation, that is all that EL is—abstract theory that could never be made to function except in narrow sub-areas such as manufacturing defects, where it would add nothing new.

IV. MARKETPLACE MANIPULATIONS BY MANUFACTURERS CAN RAISE, AS WELL AS LOWER, CONSUMER PERCEPTIONS OF RISK

Even holding aside practical objections, the new proponents of EL try to make the case that cognitive psychology supports their position. EL's new proponents focus their attention exclusively on market forces that induce manufacturers to understate product-related risks, thereby ignoring the possibility that manufacturers frequently have incentives to *overstate* the risks products pose.¹¹³ As they observe, the psychological research on risk perception supports the conclusion that consumers both under react and over-react to risk.¹¹⁴ This allows manufacturers the opportunity to manipulate consumers by either over-selling a product or over-selling safety precautions, whichever better suits their market niche. Superficially, manufacturers might appear to have no incentives to overstate risk, but in fact, they have reasons to do so. Furthermore, as shown below, adopting a system of EL would substantially amplify incentives for manufacturers to overstate risk and over-sell safety precautions.

A. *Incentives for Manufacturers to Raise Consumer Perceptions of Risk*

Would manufacturers ever knowingly overstate the risks posed by products? At first glance, the answer appears to be "obviously not." Overstating the risks associated with products makes

112. See Henderson & Twerski I, *supra* note 3, at 1279-86.

113. See Hanson & Kysar I, *supra* note 19, at 726. ("Even if the overwhelming majority of cognitive biases points toward overestimation of product risks, manufacturers will selectively target only those biases that lead to underestimation of risks.")

114. See *id.* at 722-23.

products seem more expensive than they really are, reducing demand.¹¹⁵ Nevertheless, the media are filled with advertisements that remind consumers of risks posed by some product-related activities. Consider several examples of television advertisements: a tire manufacturer repeatedly depicts a baby riding across winding country roads in one of its tires and reminds viewers that "you have a lot riding on your tires;" a car manufacturer shows personal testimonials of people who survived accidents in their cars; numerous cereal and vitamin makers remind viewers of the risks of contracting cancer; and one medical-equipment manufacturer tells the tale of a man who survives a horrific accident because the hospital he was taken to has one of its devices (the voice-over in this ad says: "Believe it or not, this is your lucky day"). Advertisements such as these play to all of the cognitive limitations that lead people to overestimate the risk that product-related activities pose and use emotional appeals to induce people to fear many such activities.¹¹⁶

The unifying theme of these advertisements is fairly apparent from the list of products in the last paragraph—these advertisers all sell precautions against otherwise unavoidable product-related hazards. In some instances, the advertised products constitute stand-alone precautions against the unavoidable risks that life, including the consumption of products generally, poses; the cereals reduce cancer risks and the medical devices help doctors save lives put at risk by accidents. In others, sellers of basic products emphasize the relative safety of their versions (or brands) the safety features are designed into the basic products themselves; certain types of tires or automobiles reduce the probability of accidents or the risks associated with them. Especially with respect to products that have become necessities in contemporary society—for which demand is substantially inelastic—selling relatively safer versions of basic products might be attractive to some manufacturers.

Even when demand for a product is relatively elastic, manufacturers who invest relatively more in safety precautions (as opposed to other, non-safety-related aspects of a product) will find

115. *See id.* at 724. ("Other things being equal, it is in the manufacturer's interest for consumers to have the lowest estimate of product risks possible: The lower the consumer's risk estimate, the more consumers will be willing to pay for the product, leading to greater sales and increased profits for manufacturers.")

116. We also invite readers to review their own experience as consumers.

advantage in heightening consumer fears and anxieties. A successful scare campaign will frighten many consumers in the market, thereby increasing demand for safety. Even though this tactic presumably reduces overall demand for the basic product, it will differentially and offsettingly benefit the manufacturer who has developed a relative advantage in offering safety precautions. In this respect, manufacturers are trapped in a prisoner's dilemma; even if they might collectively maximize their profits by manipulating consumers' fear of product-related risks, they are unable to coordinate their activities without running afoul of antitrust laws or encountering self-serving defections that threaten any cartel. Consequently, some manufacturers will maximize their market share by heightening consumer fears notwithstanding the fact that demand for the basic, underlying products is thereby reduced.¹¹⁷

Even advertisements that seem, at least superficially, designed to assuage consumer fears might actually be targeted at heightening them. Cigarette makers, for example, have historically created safety-oriented products such as filtered and low-tar cigarettes; more recently, some companies have run advertisements portraying their products as containing only natural ingredients.¹¹⁸ To be effective, these campaigns must produce some marginal increase in the level of anxiety about the underlying product-anxiety that can be mollified by use of "safer" versions of the product. Hanson and Kysar have argued that such advertisements are designed purely to soothe existing consumer fears, thereby increasing sales of the product overall.¹¹⁹ Such campaigns, however, are probably not designed so much—or at all—to increase the number of smokers as they are designed to increase the number of people using a particular brand of cigarettes. Whether this increase occurs because more people smoke (perhaps now believing that they have a "natural," and perhaps safer version of a tobacco product), or whether it occurs because more smok-

117. When the precursor to the Consumer Product Safety Commission—The National Commission on Product Safety—conducted hearings (1968-1970) leading to the establishment of the federal agency, entrepreneurs testified regarding the dangers of products to convince the Commission that their safety devices needed to be required by law. See James A. Henderson Jr., Book Note, 51 B.U. L. Rev. 704, 715-17 (1971) (reviewing *Consumer Protection or Consumer Repression? A Critique of the National Commission on Product Safety*).

118. See Hanson & Kysar II, *supra* note 19, at 1473-79.

119. See *id.* at 1462-66, 1473-79.

ers worry more about smoking and attempt to reduce the danger posed by the basic product by using a "safer" brand, is of no interest to the manufacturer that runs such an advertisement. Even if the natural cigarette campaigns reduces the overall number of smokers by convincing marginal smokers that cigarette smoking should be approached with caution, the purveyors of "natural" brands expect to come out ahead.

Manufacturers that sell only safety-related complements to risky activities also have incentives to heighten consumer fears, even though doing so reduces sales of the underlying product. For example, manufacturers of bicycle helmets want to encourage cyclists to believe that their activity poses real risks that can be alleviated through the purchase of helmets. Increasing the perceived dangers associated with cycling surely discourages some people from engaging in the activity who consequently would not buy a helmet, but it might increase the sales of helmets overall. If the manufacturer of the safety precaution is completely successful, then people will be completely unwilling to engage in the activity without their precaution. This could increase the cost of the activity, if the precaution is an inefficient one, but the manufacturer of the precaution is still better off. Similarly, the depiction of a horrific car accident by a medical-equipment manufacturer might discourage driving, but it also sells their equipment (presumably by encouraging people to pressure hospitals into purchasing such devices).

As noted earlier, the incentives for manufacturers to exaggerate risk will be tempered somewhat by the elasticity of demand for the underlying product. Manufacturers who consider heightening consumer fears must realize that this tactic will also unavoidably increase the perceived costs of all such products. If demand for the basic product is highly elastic, then the overall gain in market share that a manufacturer realizes by frightening consumers might be offset by the decrease in the overall market for the basic product. This analysis supports the casual, unscientific observation that manufacturers of precautions against unavoidable risks (or products with highly inelastic demand functions) are more likely to rely on advertising campaigns that emphasize risk.

The new rhetoric supporting EL seems to assume that manufacturers always behave as monopolists, attempting to expand the

sales of the underlying product.¹²⁰ Most industries are competitive, and grabbing more market share is no less valuable to a firm than expanding the underlying market for the basic product. In many cases, manufacturers can capture greater market share for their brands by overstating the risks the basic product poses. The benefits of such expanded market share might easily outweigh the overall market reduction created by such a campaign especially if the underlying demand for the product is highly inelastic.

Furthermore, even apart from manufacturers, our society includes important entities that benefit from increasing consumer fear of products. These include public-interest consumer advocates, plaintiff's attorneys, hospitals, insurance companies, politicians who adopt consumer rights as one of their issues, consumer-information media outlets (such as Consumer Reports) and the media in general. Although the budgets and influence of consumer advocates and consumer information outlets are dwarfed by the power of manufacturer marketing, politicians and the media have considerable influence. Politicians have great access to the public and large advertising budgets of their own. The media also have a tremendous ability to influence the public. These entities frequently use cognitive biases to heighten public fears.¹²¹ As just one example, consider that the general public's fears over the dangers of silicon-gel breast implants may have been inspired almost entirely by a single television news-magazine report, which resulted in billion-dollar lawsuits and bankruptcy for a Fortune 500 company, even though most scientists agree that no credible evidence supported the conclusion that silicon-gel implants pose any danger.¹²² Manufacturers can sometimes find themselves utterly powerless to dispel consumer fears in the face of extensive media coverage and politically motivated attacks.

B. *The Undesirable Effects of EL on Incentives for Manufacturers to Increase Consumer Perceptions of Risk*

Complaining that manufacturers over-sell safety precautions might seem callous, but selling an excess of safety generates unde-

120. We especially thank Professor Keith Sharfman for this observation.

121. See Timur Kuran & Cass R. Sunstein, *Availability Cascades and Risk Regulation*, 51 *Stan. L. Rev.* 683, 736-46 (1999).

122. See David E. Bernstein, *The Breast Implant Fiasco*, 87 *Cal. L. Rev.* 457, 467-69 (1999).

sirable social costs. Even if things are made safer, the costs of excessive safety are wasteful and over-selling safety may actually make things less safe. Marketing campaigns that exacerbate consumer fears might inadvertently encourage consumers to avoid relatively safer activities and substitute relatively more dangerous ones. For example, a campaign designed to make cyclists purchase helmets might convince consumers that cycling is too dangerous, thereby leading former cyclists to undertake a more dangerous sport such as skiing (or worse, abandon physical sports and fill their recreational time with sedentary activities that leave them vulnerable to health problems). Also, for activities that cannot be avoided, products accompanied by an excess of safety precautions tend to be more cumbersome and less useful. For example, some kinds of bulky, heavy-weight bullet-proof vests make officers virtually impervious to gunfire, but render them physically unable to accomplish their jobs.¹²³ If EL encourages these practices—and we argue in this section that it does—it has to be regarded as a wasteful and undesirable reform.

1. *EL Would Not Reduce Consumer Willingness to Buy Excessive Product Safety*

A superficial analysis suggests that EL might ameliorate manufacturers' incentives to over-sell safety. 1. Because EL provides consumers with insurance coverage for injuries caused by any product, consumers arguably have no reason to purchase safety precautions against product-related injuries. 2. EL provides consumers with insurance against such injuries and rational consumers could therefore ignore manufacturers' efforts to frighten them into buying excessive safety precautions.

This analysis, however, relies on implausible assumptions about both consumers and the EL system. For starters, it assumes that consumers would be aware that the EL system provides extensive insurance. This is a remarkable logical flaw in the new rhetoric: the same consumers who fail to understand their own attitudes towards risk and whose behavior is subject to manipulation

123. The new Restatement acknowledges that the determination of whether a product is defective requires a full analysis of the various pros and cons associated with each design alternative. See Restatement (Third) of Torts: Prod. Liab. § 2(b) cmt. f. For an analysis of the bullet-proof vest dilemma, see Henderson & Twerski, *supra* note 17, at 488.

by manufacturers, somehow manage to understand that the legal system will compensate them for any injuries products cause. We doubt this is an accurate portrait of consumer behavior. If anything, consumers have far less information about the legal system than any other aspect of product-related risks. Not only might consumers remain unaware of the insurance aspects of the system, manufacturers attempting to scare consumers into buying safety precautions might be able to convince them that the EL system would not provide them with adequate compensation. The same consumers who are supposedly being duped by manufacturers regarding the risks products pose cannot, at the same time, be expected to understand the legal system accurately.

Furthermore, no EL system can fully compensate consumers for all of the harm that products cause. Full compensation would require that the system grapple with non-market assets such as life and limb. No tort remedy really fully compensates a parent for the loss of child or a maimed accident victim for the loss of a limb. Neither would it be possible for a tort system to offer an adequate sum for damages so as to make someone truly indifferent between the size of the damages and the injury. Psychological research suggests that the amount that people would be willing to accept to endure extreme injuries ex-ante is much greater than the amount that people would be willing to pay to restore themselves to full health ex-post.¹²⁴ Because the legal system always operates ex-post, it will chronically under-compensate victims relative to the ex-ante value people place on life and limb.¹²⁵ Indeed, EL's proponents do not suggest that the system should compensate for all losses, and propose instead a system based on a worker-compensation model.¹²⁶ Even if consumers understood such a system, they would still be willing to purchase further safety precautions.

Intuitively, it seems unlikely that a consumer, worried about protecting life and limb would be willing to ignore safety concerns because the legal system promises some inadequate financial compensation if injury should occur. The above analysis further suggests that it would not be rational for them to ignore their fears and rely on manufacturers to make them whole if they are injured.

124. See Edward J. McCaffery et al., *Framing the Jury: Cognitive Perspectives on Pain and Suffering Awards*, 81 Va. L. Rev. 1341, 1353-54 (1995).

125. See *id.*

126. See Hanson & Kysar II, *supra* note 19, at 1567.

Thus, EL would neither assuage consumer fears nor inhibit manufacturers' ability to exploit those fears.

2. *EL Would, Compared with Traditional Tort Law, Actually Increase Consumer Demand for Excessive Safety Precautions*

In fact, EL would enhance manufacturers' abilities to over-sell safety. As an insurance system, EL would mean that a safer version of a product would reduce a manufacturer's liability, even if the extra safety is inefficient. Under EL, the excessive safety precaution adds costs to the product, but also confers some savings on the manufacturer by reducing liability. By contrast, under a fault-based system, manufacturers do not pay for the cost of the accidents if they incorporate at least the efficient level of care and so an extra expenditure on precautions is just an additional expense. As a result, adopting EL would narrow the gap in price between an efficiently safe product and a product that incorporates an excess of safety precautions.¹²⁷ It is precisely this effect that EL's new proponents advance as a benefit of the system—the monetary price of the product under EL would perfectly reflect all of its costs, making it more likely that consumers will purchase safer products.

This feature of EL, however, also facilitates exploitation of consumers by purveyors of excess safety. If consumers are completely ignorant (or suspicious) of the operation of the EL system (ignorance and suspicion that purveyors of safety can encourage with their advertising), then consumers would count the costs of the accidents associated with the efficiently safe products twice: first, when manufacturers of efficiently safe products include the costs of the accidents that these products cause in the purchase price; and second, when consumers, ignorant of the legal system, act as if they will have to bear the costs of the accidents that efficiently safe products cause.

Consider a numeric example to illustrate this point. Imagine that a product can be made with two different designs: design one costs \$80 to produce per unit, but causes \$10 in expected accident

127. Of course, a fully informed, fully rational consumer would consider the harm that products cause, whether or not compensated, as part of the real (as opposed to monetary) price and perceive no difference in the real price of products under either fault-based liability or EL. The premise of new rhetoric supporting EL, however, is that the rational model does not accurately describe consumers.

costs; design two costs \$95 to produce and causes no accidents. Further suppose that the accident costs do not vary with the type of consumer or consumer use and assume away valuation problems with injury to life and limb. Design two is inefficiently safe, as it incorporates a \$15 cost to save \$10 in accidents. A rational consumer with perfect information would prefer to purchase design one, regardless of whether the law incorporates EL or fault-based liability. Under fault-based liability, manufacturers would use design one, charge \$80 for the product, and would not be liable for any harm the product caused (assuming they properly warned consumer of the accident risk). The new proponents of EL argue that the manufacturer would try to induce consumers to underrate or disregard the expected \$10 accident cost that accompanies the product. EL would remedy that by forcing manufacturers to insure against these accidents, thereby raising the price the manufacturers charge for the efficient design to \$90—eliminating the otherwise hidden cost of accidents. Under either an EL or fault-based system, the inefficient design costs \$95, as it entails no accident costs. EL effectively narrows the price gap between the two designs from \$15 to \$5. If consumers fail to understand that the EL system offers them insurance, they might factor some or all of the cost of accidents entailed by design one into their purchasing decision, thereby making design one seem like it costs \$100. As a result, consumers would prefer design two. Because EL narrows the price gap between the designs, it makes consumers more vulnerable to efforts to over-sell safety.¹²⁸

Even if consumers would completely understand the EL system, they would also be aware of the system's limitations. All proposed EL systems leave some injured consumers with some uncompensated injuries. Purveyors of excessively safe versions of products will find it easier to convince consumers to spend a little extra on safety under an EL system because the EL system narrows the price gap between efficiently safe and excessively safe products. In effect, because excessive safety reduces manufactur-

128. Of course, if the purveyors of the inefficiently safe design were to induce consumer to believe that the efficient design is much more dangerous than is the case, they might be able to convince consumers to purchase the inefficiently safe product under any system. The point here, however, is that by narrowing the price gap, EL makes their efforts a little easier.

ers' liability costs under EL, the net costs of excess safety to manufacturers are less than they would be otherwise.

C. *Asymmetric Manipulation of Consumers*

Probably the most clever rhetorical move EL's new proponents make is their assertion that the attractiveness of EL does not depend upon whether consumers tend to overestimate or underestimate risk.¹²⁹ Hanson and Kysar are responsible for this assertion and argue that consumers overestimate and overreact to risk under some circumstances, and underestimate and under-react to risk under other circumstances.¹³⁰ They contend that manufacturers, through quasi-empirical marketing techniques such as focus groups or test-marketing of products, will ferret out methods of ensuring that consumers will underestimate and under-react to the risks that their products pose. This argument neatly sidesteps a long debate about overestimation and underestimation that has for decades confounded scholars who attempted to use psychological research to assess products liability.¹³¹

Though this argument is clever, it is misleading. As observed earlier, some manufacturers struggle to convince consumers that a product-related activity is dangerous while their competitors struggle to convince consumers that the same activity is safe. It would be naive to assume that the competing efforts of manufacturers who attempt to dampen consumers' fears invariably cancel the efforts of manufacturers who attempt to heighten them. In some contexts, it will be easier to augment fear than to dampen it, and vice-versa.

Determining which conditions make consumers susceptible to which biases is surely a messy and difficult empirical chore. Nevertheless, it is an essential prelude to abandoning the central feature of products-liability law. Because manufacturers have incentives both to overstate and understate risk, and each is socially costly, it is necessary to determine which effect is more likely and which is more costly before endorsing a reform. Clever rhetorical moves notwithstanding, the debate between those who believe

129. See Hanson & Kysar I, *supra* note 19, at 721-24.

130. See *id.*

131. See *id.*

consumers overreact to risk and those who believe consumers under-react to risk cannot be avoided.

In the main, overreaction to risk is probably easier to encourage than under-reaction. Many cognitive processes foster overestimates of the probability of an accident. Vivid examples of horrific accidents and tragedies remain cognitively "available" for relatively long periods of time, leading people to overestimate the likelihood that such events will recur.¹³² Some low-probability hazards so closely fit the prototype of dangerous activities that people assume that they are dangerous when they are not.¹³³ After a disaster occurs, people, in hindsight, tend to believe that experts should have been able to predict and avoid it, which thereby undermines trust in experts who manage complicated technological hazards.¹³⁴ And, psychologists have repeatedly shown that people overreact to low-probability events.¹³⁵

Furthermore, human emotional responses that facilitate overreaction to risks are more powerful and more common than ones that lead people to ignore risk. For example, mental illnesses that involve chronic overreaction to danger, such as post-traumatic stress disorder and phobias, lack any counterparts involving chronic underreaction.¹³⁶ Similarly, although excessive anxiety underlies dozens, if not hundreds, of diagnosed mental disorders, only one (sociopathy) involves chronic under-reaction to danger. Even depression is often characterized by states of extreme anxiety.¹³⁷ The human brain seems, on the whole, built to overreact to risk rather than to casually disregard risk. Indeed, it would be remarkable if any species survived the evolutionary process by persistently under-reacting to risk.

To be sure, this common tendency to overreact to risk is counteracted by some psychological phenomena that lead people to

132. See Kuran & Sunstein, *supra* note 121, at 730-33.

133. See Sarah Lichtenstein et al., *Judged Frequency of Lethal Events*, 4 J. Exper. Psychol.: Hum. Learning & Memory 551 (1978).

134. See Baruch Fischhoff, *For Those Condemned to Study the Past: Heuristics and Biases in Hindsight, in Judgment Under Uncertainty: Heuristics and Biases* 335, 339-43 (Daniel Kahneman et al. eds., 1982).

135. See Paul Slovic et al., *Facts Versus Fears: Understanding Perceived Risk, in Judgment Under Uncertainty: Heuristics and Biases* 463, 465-72 (Daniel Kahneman et al. eds., 1982).

136. See Martin E. Seligman & David L. Rosenhan, *Abnormal Psychology* 217-18 (1994).

137. See *id.* at 157.

understate or ignore risk. People are overconfident in their assessments of their own likelihood of surviving an accident, particularly when they have some control over the circumstances that might produce an accident.¹³⁸ People also rationalize their own voluntary exposures to risk, generally by coming to believe that such risks are not dangerous.¹³⁹ As a result of these combined effects, people engage in one of two responses to risk: alarmist overreaction (take precautions, better safe-than-sorry), or complete neglect (out-of-sight, out-of-mind).¹⁴⁰

Manufacturers clearly have the capacity to distract people's natural tendency to overreact, but overreaction is a very powerful and widespread phenomenon. In other contexts, legal scholars argue that it is easy to facilitate public overreaction to health hazards.¹⁴¹ Administrative law is filled with examples of publicly supported over-regulation of low-level hazards.¹⁴² Although a careful empirical study of a particular product, or type of product, might reveal that consumers generally under-react to risk or become easily distracted from it, without such an assessment, psychological research cannot support EL.

V. CONCLUSION

The new proponents of EL attempt to claim the intellectual high ground by asserting that anyone who opposes EL must have failed to take psychological research seriously. We disagree; it is EL's new proponents who fail to take the debate seriously. Their argument fails to provide a *serious* quantitative assessment of the extent of market manipulation. It fails to seriously consider existing products-liability law's efforts to address manufacturer manipulation of consumers and it fails to take *seriously* the practical implications of implementing EL. The new rhetoric itself fails to take the cognitive psychological research *seriously* inasmuch as it

138. See Hanson & Kysar I, *supra* note 19, at 656-58 (reviewing literature on optimism).

139. See Jeffrey J. Rachlinski, *The Wages of Risk*, 6 Cornell J.L. & Pub. Pol'y 673, 691-92 (1997).

140. See Howard Margolis, *Dealing With Risk: Why the Public and the Experts Disagree on Environmental Issues* 76 (1996).

141. See Kuran & Sunstein, *supra* note 121, at 691-703.

142. See Stephen Breyer, *Breaking the Vicious Circle: Toward Effective Risk Regulation* 24-27 (1993).

ignore manufacturers' ability to induce consumers to overreact to risk.

EL's new proponents correctly recognize that the psychological research on judgment and choice generally supports the notion that consumers lack fixed preferences because preferences are constructed on the spot to suit particular decision-making tasks.¹⁴³ They also rightly note that this observation about consumer behavior generally refutes extreme notions of consumer sovereignty. Psychological research supports the proposition that, in their efforts to satisfy their desires, people commonly make mistakes and often have no real sense of what their desires are in the first place. This makes them more vulnerable to manipulation than suggested by conventional economic models of consumer choice, which assume that people have relatively fixed preferences. Nevertheless, the observation does not support EL.

The chief mistake made by EL's newer advocates lies in oversimplifying the lessons of cognitive psychology. The psychological research does, generally speaking, support paternalistic or quasi-paternalistic legal reforms such as EL, that are designed to protect people from themselves.¹⁴⁴ This general tendency must be treated with some nuance and context, however, as it is more compelling in some circumstances than others. Psychology's support for paternalism must also be weighed against other, non-psychological concerns.¹⁴⁵ Furthermore, rational-actor models of human behavior have proven enormously valuable and stunningly accurate for most purposes and should not be discarded without solid evidence that they have failed. Finally, the courts and the legislatures, with centuries of experience, are entitled to some respect on psychological issues. Those who would use psychology to advance reforms should carefully consider the possibility that the law has already noted the existence of the psychological phenomena and developed suitable, if unavoidably imperfect, responses.

143. See generally Paul Slovic, *The Construction of Preference*, 50 *Amer. Psychol.* 364 (1995) (outlining the process of preference construction and how decision-making is generally spur of the moment rather than derived from previously established preferences).

144. See Rachlinski, *supra* note 22, at 763; Cass R. Sunstein, *Behavioral Analysis of Law*, 64 *U. Chi. L. Rev.* 1175 (1997).

145. See Robert A. Hillman, *The Limits of Behavioral Decision Theory in Legal Analysis: The Case of Liquidated Damages*, 85 *Cornell L. Rev.* 717, 737-38 (2000).

With these caveats in mind, we suggest that cognitive psychology supports reforms which are less drastic than the wholesale adoption of EL in products cases. First, in those situations in which psychological research indicates that consumers under-react to the risk that products pose, and the products pose "roulette-style" harm that consumers cannot control,¹⁴⁶ forms of EL may be appropriate. Cigarettes represent the most obvious example of these circumstances. The dangers that they pose trigger both cognitive dissonance and over-optimism more so than the cognitive biases that result in overreaction to risk. Also, the fact that consumers can do little to control the harm that cigarettes cause, other than by avoiding the product altogether, reduces the moral hazard problem. It is perhaps not surprising that EL's new proponents have focused almost exclusively on cigarettes, as they present the best case for EL.¹⁴⁷ It is unclear whether many other products also satisfy these conditions.

A second reform supported by lessons from cognitive psychology would be to restrict advertising. The principal source of social harm identified by EL's new proponents is not the products themselves, but product advertising. Restrictions on advertising would create far fewer unwanted side effects than would EL.¹⁴⁸ Indeed, the law seems ahead of the cognitive psychological research on this point, having restricted advertising for cigarettes decades ago. If the cognitive psychological research can be said to have taught us more about the evils of advertising, then surely increased restrictions on advertising make more sense than an expensive, difficult system of EL.

Finally, we cannot help but note that although EL's new advocates claim to have embraced cognitive psychology and taken it seriously, in truth they hold closely to a conventional economic analysis of product-related risk. For example, Hanson and Kysar argue that "manufacturers' manipulative practices may inflate consumers' perceptions of a product's *overall* desirability," and the

146. See Restatement (Third) of Torts: Prod. Liab. § 2(c)(3).

147. See Hanson & Kysar II, *supra* note 19, at 1467. See also *id.* at 1560 ("No product illustrates our position more acutely than do cigarettes.").

148. Assuming that such restrictions on advertising would be consistent with the First Amendment. See generally 44 *Liquormart, Inc. v. Rhode Island*, 517 U.S. 484 (1996) (finding that Rhode Island's law banning truthful and accurate advertising about alcohol content and retail prices is a violation of speech protected by the first amendment).

“consumers’ misperception [that this manipulation creates] would result in inefficient purchases.”¹⁴⁹ If consumer preferences are completely constructed, then what exactly is supposed to be the efficient level of consumption? Should the socially optimal demand for soup be measured with the cans in alphabetical order, or not? On a rainy day, or sunny? With what kind of music or ambient odors (if any) in the background? In what section of the store? What should the labels look like? How big are the cans? Risk is no different. The slight risk of death from skiing creates part of the sport’s pleasure whereas the slight risk of death from exposure to a nearby hazardous waste dump creates a massive uproar. The notion that manufacturers distort consumer risk-perception assumes that there is some natural and appropriate risk-benefit assessment from which manufacturers lead consumers astray. If we take seriously the psychological proposition that all preferences are constructed, then there is no magical correct level of risk that consumers should endure.

Altering the legal regime would likely alter the level of risk manufacturers offer in their products. Whether the new levels of risk would be “better” in some sense, requires a definition of “better.” Not finding one in psychology, EL’s new proponents resort to an economic definition, using terms like “efficient” and “socially optimal.” These terms are foreign to the psychological world of constructed preferences. The new rhetoric alternately relies on psychology and economics when each supports EL. A complete, serious assessment of what cognitive psychology means for products-liability has yet to be undertaken.

149. Hanson & Kysar II, *supra* note 19, at 1566-67.