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SJC-11179

WILLIE EVANS, executor,¹ vs. LORILLARD TOBACCO COMPANY.

Suffolk. December 3, 2012. - June 11, 2013.

Present: Ireland, C.J., Spina, Cordy, Botsford, Gants, & Duffly, JJ.

Tobacco. Wrongful Death. Negligence, Wrongful death, Duty to warn, Defective product, Adequacy of warning, Comparative, Gross negligence. Consortium. Parent and Child, Consortium. Wilful, Wanton, or Reckless Conduct. Conscious Pain and Suffering. Consumer Protection Act, Unfair or deceptive act. Uniform Commercial Code, Warranty. Warranty. Damages, Wrongful death, Loss of consortium, Punitive, Conscious pain and suffering. Jury and Jurors. Practice, Civil, Wrongful death, Challenge of jurors, Bias of judge, Mistrial, Dismissal, Instructions to jury. Collateral Estoppel. Estoppel. Res Judicata. Limitations, Statute of. Evidence, Findings in another proceeding, Relevancy and materiality.

Civil action commenced in the Superior Court Department on June 28, 2004.

The case was tried before Elizabeth M. Fahey, J., and motions for judgment notwithstanding the verdict, for a new trial, for remittitur, and to alter or amend findings of fact and judgment were heard by her.

The Supreme Judicial Court granted an application for direct appellate review.

Paul F. Ware, Jr. (Kevin P. Martin & Andrew J. McElaney, Jr., with him) for the defendant.

¹ Of the estate of Marie R. Evans.

Michael D. Weisman (Thomas Frisardi with him) for the plaintiff.

The following submitted briefs for amici curiae:

Robin S. Conrad, Kate C. Todd, & Lisa S. Blatt, of the District of Columbia, & Carolyn A. Pearce for Chamber of Commerce of the United States of America.

Hugh F. Young, Jr., of Virginia, & David R. Geiger & Creighton Page for Product Liability Advisory Council, Inc.

Richard A. Samp, of the District of Columbia, & Donald R. Pinto, Jr., for Washington Legal Foundation.

Ellen Vargyas, of the District of Columbia, & Lisa G. Arrowood & Katherine A.K. Mumma for American Legacy Foundation & others.

Michael B. Elefante for Tobacco Control Legal Consortium.

Steven J. Phillips & Victoria Phillips, of New York, & Christopher Weld, Jr., Edward Foye, David C. Strouss, & Michael A. Lesser for Kathleen Donovan & another.

Emily G. Coughlin & Cynthia M. Kopka for Massachusetts Defense Lawyers Association.

Timothy C. Kelleher, III, & J. Michael Conley for Massachusetts Academy of Trial Attorneys.

GANTS, J. Marie R. Evans (Marie) died in 2002, at the age of fifty-four, from small cell lung cancer caused by smoking cigarettes. A jury found that the defendant, Lorillard Tobacco Company (Lorillard), the designer and manufacturer of Newport brand cigarettes, caused her wrongful death based on various theories of liability: breach of the implied warranty of merchantability because of design defect and inadequate warning of Newport cigarettes' health hazards and addictive properties; negligence in the design, marketing, or distribution of Newport cigarettes; negligent distribution by giving free samples of Newport cigarettes to minors; and negligent performance of a duty Lorillard voluntarily undertook in 1954 to research the health hazards of smoking and disclose accurate information regarding the results of that research to the smoking public. As to the

negligence claims, the jury found Marie also to be negligent, and apportioned thirty per cent of the comparative negligence to her. The jury awarded \$21 million to her son, Willie Evans (plaintiff), for the loss of his mother's companionship, comfort, and counsel; and \$50 million to Marie's estate for her conscious pain and suffering.² The jury also found that Lorillard was grossly negligent and acted in a manner that was malicious, wilful, wanton, or reckless, and awarded punitive damages in the amount of \$81 million. The judge found that Lorillard had violated G. L. c. 93A, § 2, but did not award any additional compensatory or punitive damages for its violation, finding that any further award of damages would be "duplicative" of the jury's award.

Following trial, Lorillard moved for judgment notwithstanding the verdict, a new trial, remittitur, and amendment of the G. L. c. 93A decision. The judge denied the posttrial motions except for the motion for remittitur, which she allowed in part, reducing the amount of compensatory damages to the plaintiff to \$10 million, and to Marie's estate to \$25 million, but denying any remittitur as to punitive damages. The plaintiff accepted the remittitur, Lorillard appealed from the judgment, and we granted the plaintiff's application for direct appellate review.

² Because Willie Evans, in his capacity as executor of his mother's estate, is the plaintiff, we refer to him as the plaintiff, and we refer to Marie R. Evans as Marie.

We affirm the judgment only in part. We conclude that the jury were adequately instructed regarding the claim of wrongful death based on the breach of the implied warranty of merchantability, that the evidence supports the jury's verdict finding such a breach, that this breach alone supports the jury's finding of wrongful death, and that the errors at trial did not deny Lorillard a fair trial as to this claim. But we conclude that the jury were not adequately instructed regarding the claim of wrongful death based on the theories of negligent design and marketing, and that the jury's findings on these theories must be vacated. Because the verdict form asked the jury to determine whether Marie's wrongful death was caused by Lorillard's negligence, and did not request separate findings of causation based on each theory of negligence, we must also vacate the jury's finding that Marie's wrongful death was caused by Lorillard's negligence because the jury may have found that Marie's death was caused by negligent design or marketing, rather than negligent failure to warn or the negligent distribution of cigarettes to minors. We also conclude that, even if Lorillard did not honor its public commitment in 1954 to "accept an interest in people's health as a basic responsibility, paramount to every other consideration in our business," Lorillard did not, by making this statement, voluntarily undertake a legal duty whose negligent breach provides a separate ground to find wrongful death. Because the jury's award of compensatory damages, as reduced by the remittitur, adequately rests on the

finding of breach of the implied warranty of merchantability, we affirm that award. However, we vacate the award of punitive damages because it may have been tainted by the errors regarding the theories of negligent design and marketing and the breach of a voluntarily undertaken duty, and we remand the case for a new trial on the issue of punitive damages.

We also vacate the judgment arising from the judge's finding that Lorillard committed unfair or deceptive acts or practices in the conduct of trade or commerce, in violation of G. L. c. 93A, § 2 (§ 2). We conclude that the judge erred in finding that Lorillard voluntarily undertook a legal duty through its public commitment in 1954, and that the judge improperly applied the doctrine of offensive collateral estoppel against Lorillard by adopting over thirty-eight findings from a Federal racketeering case against Lorillard and other cigarette manufacturers. In addition, because the judge found that Lorillard "was negligent in the design, marketing, and/or distribution of Newport cigarettes" (emphasis added), the judge's finding of negligence was potentially based exclusively on a theory of either negligent marketing or distribution, and not on a theory of negligent design. However, any negligence in Lorillard's marketing or distribution of its cigarettes to minors could not have caused injury to Marie after 1979, because she was an adult by 1979. Because these various errors, when considered cumulatively, may have affected the judge's ultimate determination that Lorillard caused injury to Marie after 1979 through its violation of § 2,

we conclude that the prudent course is to vacate the judgment on the plaintiff's claim under c. 93A and remand the case to the judge. On remand, the judge shall determine whether, based solely on the relevant evidence presented at trial, Lorillard violated § 2, and, if liability is found under G. L. c. 93A, § 9, what actual damages should appropriately be awarded to Marie's estate for injury suffered by her that was caused by the § 2 violation. If the judge finds a violation of § 2, the judge shall also determine whether the violation was wilful or knowing and, if so, whether actual damages should be doubled or trebled in accordance with G. L. c. 93A, § 9 (3).³

Background. Because Lorillard contends that the evidence is insufficient as a matter of law to sustain the jury's verdict, we summarize the evidence at trial in the light most favorable to the plaintiff. We reserve our recitation of some of the evidence for our analysis of Lorillard's specific claims of error.

1. Marie's smoking history. In 1960, when Marie was thirteen years old, she began smoking Newport cigarettes. She started smoking cigarettes because she saw other people smoking "and they looked attractive doing it," and because "[i]t made you

³ We acknowledge the amicus briefs filed by the Chamber of Commerce of the United States of America; the Product Liability Advisory Council, Inc.; Washington Legal Foundation; the American Legacy Foundation and others; the Tobacco Control Legal Consortium; Kathleen Donovan and Patrick Cawley; the Massachusetts Defense Lawyers Association; and the Massachusetts Academy of Trial Attorneys.

grown up, made you feel like an adult."⁴ She testified that, when she was a child, "there would be campaigns going on for Newport"; they had "free giveaways" of cigarettes after school in a playground in the Orchard Park neighborhood of the Roxbury section of Boston, where she grew up. "So I would stand out there and get free cigarettes. That's how I started smoking." The "free giveaways" occurred "quite a bit; maybe about fifty times." She smoked Newport cigarettes because she "had free access to them," "[t]hey were pretty packaged," and "[t]hey were always available." Marie testified that, at least in the early years of her smoking, she felt that she received certain benefits from cigarette smoking: she enjoyed the taste and aroma of the cigarette, smoking helped her relieve stress and anxiety, smoking helped keep her alert, smoking helped her keep her weight under control, and smoking helped her fit in socially with her friends.

When she was a child and teenager, she heard people refer to cigarette smoking as an addiction. She remembered the 1964 United States Surgeon General's report describing cigarette smoking as habit forming and as a cause of lung cancer. However, she testified that she was not convinced by these statements:

"[I]t was, you know, one of those two sides to every story. It was like, one day it would come out saying it was bad for you. The next day it was good for you. And it was kind of always a debate going on whether or not it caused cancer or didn't, or if it was something else. And so it became

⁴ Marie died before trial began, but she was deposed on multiple dates, with her final deposition occurring less than one month prior to her death, and portions of her videotaped depositions were offered in evidence at trial.

something that you really didn't rely on anyone's opinion as to being the true cause of what causes cancer."

As an adult, Marie smoked an average of thirty Newport cigarettes each day -- one and one-half packs of cigarettes. She was so addicted to cigarettes that she would smoke within five minutes of waking up each morning. At least ninety per cent of the cigarettes she smoked in her life were Newports. She once tried Merit, another brand of cigarette, because it was supposed to be less harmful, but she did not like the taste.

In 1970, when Marie's father died from lung cancer, she drew a connection between her father's lung cancer and his having been a "lifelong smoker," but she "gave no thought" as to the cause of his lung cancer. She became convinced that smoking was bad for her health in 1985 when she had a heart attack. During the remainder of her life, she tried to quit smoking more than fifty times, but she never succeeded. In her own words:

"I tried everything. Nothing worked. I tried to quit smoking certainly immediately. I was unable to. By then, it was too late; I was addicted to it. I went to several places, spent thousands of dollars trying to find a cure, tried to help myself, psychiatrists, hypnosis, I went to patches, went to -- like I said, everything."

In 1997, Marie quit smoking for four to five months. When she returned to smoking, she told her doctor she did so "due to social influences." In December, 2001, a medical oncologist informed her that she likely had metastatic small cell lung cancer. Within seven months of that diagnosis, she was dead. The parties stipulated that smoking caused the lung cancer that led to her death.

2. Health risks of smoking Newport cigarettes. The plaintiff offered the testimony of three experts (Dr. Kenneth M. Cummings, Dr. William A. Farone,⁵ and Dr. Neal L. Benowitz) regarding the health risks that arise from smoking Newport cigarettes and the feasibility of an alternative cigarette design that would have reduced these risks. According to these experts, the particulate matter or "tar" in the smoke creates the "flavor" of the smoke and contains the carcinogenic chemicals that cause lung cancer. Nicotine is the substance in cigarette smoke that creates a pharmacological effect and causes addiction. Menthol, when added to cigarettes, affects the flavor of the smoke, masks the irritancy some smokers feel, and makes it easier for some people to start smoking. We will address the plaintiff's evidence regarding the effects of tar, nicotine, and menthol in turn.

a. Tar. The particulates that result from burning tobacco are collectively known as "tar." "The tar is the taste in a cigarette," so a smoker would "have a better taste experience from the product" if the cigarette were designed to allow more of the tar through the filter. However, the tar is the element in cigarettes with the carcinogenic chemicals that, with repeated exposure, cause cancer. If a cigarette manufacturer designed the cigarette to reduce the amount of tar the consumer inhales when

⁵ Dr. William A. Farone previously worked for seven years as the director of applied research at Philip Morris Incorporated, another cigarette manufacturer.

smoking a cigarette, the manufacturer would reduce the risk of the consumer developing cancer, unless the consumer were to compensate by inhaling harder on the cigarette or smoking more cigarettes.

b. Nicotine. Nicotine is a chemical that exists naturally in tobacco plants. When a cigarette is smoked, the nicotine in the tobacco is carried on the tar into the lungs. From there, the nicotine gets absorbed into the bloodstream and arrives at the brain within about seven to ten seconds. In the brain or in the lungs, nicotine binds to certain "nicotinic receptors," which triggers the release of various hormones. The most critical hormone that is released by the binding of nicotine to its receptors is dopamine, a chemical that "has the attribute of making you feel good." By triggering the release of dopamine, nicotine can partially satisfy the craving for food, which is why those who smoke have an easier time keeping their weight down. Nicotine also stimulates the release of norepinephrine, creating a stimulant effect that helps a smoker wake up and feel more alert. Nicotine can also enhance the release of acetylcholine, which can assist with arousal and cognitive function; stimulate the release of serotonin, which can modulate mood and potentially help with depressed feelings; and stimulate the release of endorphins and gamma amino butyric acid, which reduce anxiety and tension.

Nicotine is as or more addictive than any other drug of abuse, including heroin and cocaine. Even Lorillard's expert,

Dr. Kathleen Brady, an addiction psychiatrist, agreed with the description of nicotine dependence as a "severe illness." In an article Brady coauthored, nicotine is described as "among the most addictive substances known," and the article asserted that "there's a greater likelihood that a person who starts smoking will become dependent than a person who starts using heroin," cocaine, or alcohol. As a smoker continues to expose herself to nicotine, the smoker's brain will develop new receptors to get the effect of the drug. This effect, known as "drug tolerance," results in the smoker needing more nicotine to get the same effect from smoking. Furthermore, repeated smoking of cigarettes with addictive levels of nicotine results in a physiological change known as neuroplasticity, "which basically means that new brain circuits or connections are made with administration of nicotine," and these changes appear to last for months or years. The result of these physiological changes arising from the use of nicotine is that the addicted smoker begins to feel withdrawal symptoms when she does not have the nicotine level to which she is accustomed in her body. As Dr. Cummings testified:

"Within about [twenty] minutes, for the typical smoker, the nicotine levels are beginning to plummet. And a lot of addicted smokers will find themselves . . . within [thirty] minutes, [forty] minutes [with] a little antsy feeling in the pit of their stomach. They are then looking to have a cigarette. . . . [P]eople begin to go into withdrawal, literally, within hours after they quit smoking and find it hard to stay off. . . . You take a drag on a cigarette, that goes away."⁶

⁶ Dr. Kenneth M. Cummings also testified that "exposure of the developing brain [to nicotine from cigarette smoke] seems to

While the strength of an individual's nicotine addiction will vary with the average number of cigarettes smoked each day, a young person smoking just one cigarette per day and an adult smoking five cigarettes per day will suffer from addiction. The addiction strengthens over time, and the earlier a person starts smoking, the harder it is to quit. Most smokers start early in life. The average age at which individuals begin to smoke is fourteen and one-half years, two-thirds start by the age of eighteen, and few start after the age of twenty-five.

The addictive power of nicotine is reflected in the testimony of Dr. Cummings that there are approximately 48 million smokers in the United States, of whom approximately seventy per cent want to quit, but only approximately 17 million actually try each year to quit. Of those who try to quit, only three per cent succeed in not smoking for six months.

c. Menthol. Menthol is a chemical derived from mint. Adding menthol to cigarettes makes the smoke less likely to cause a harsh sensation and trigger a gag reflex by anesthetizing the sensory organs in the throat. By making cigarette smoke milder and easier to inhale, menthol makes it easier for some young people to start to smoke. The addition of menthol also affects the flavor of the smoke; approximately thirty per cent of smokers

alter the brain structure in ways that make[] it more addictive and harder to quit at the end" (emphasis added). Dr. Neal L. Benowitz supported this claim by testifying that "[t]he adolescent brain is more susceptible to long-term effects of nicotine compared to the adult brain."

in the United States prefer mentholated cigarettes. Apart from making it easier for some people to start smoking, menthol does not materially affect the delivery of tar or nicotine in the cigarette and is not itself either carcinogenic or addictive.

Discussion. 1. Implied warranty of merchantability. Under the wrongful death statute, G. L. c. 229, § 2, Lorillard is liable if its negligence or wilful, wanton, or reckless act caused Marie's death, or if it "is responsible for a breach of warranty arising under Article 2 of [G. L. c. 106]" that caused her death. Under G. L. c. 106, § 2-314 (2) (c), of the Uniform Commercial Code, apart from exceptions not applicable here, a warranty that goods, such as cigarettes, are merchantable is implied in a contract for their sale, and goods are merchantable if they are "fit for the ordinary purposes for which such goods are used." "A seller breaches its warranty obligation when a product that is 'defective and unreasonably dangerous' . . . for the '[o]rdinary purposes' for which it is 'fit' causes injury."

Haglund v. Philip Morris Inc., 446 Mass. 741, 746 (2006)

(Haglund), quoting Colter v. Barber-Greene Co., 403 Mass. 50, 62 (1988) (Colter). A product may be defective and unreasonably dangerous because of a manufacturing defect, a design defect, or a warning defect, that is, a failure reasonably to warn of the product's foreseeable risks of harm. See Restatement (Third) of Torts: Products Liability § 2, at 14 (1998) (Third Restatement) ("product is defective when, at the time of sale or distribution, it contains a manufacturing defect, is defective in design, or is

defective because of inadequate instructions or warnings"). Here, the plaintiff alleged, and the jury found, a design defect and a warning defect, with the warning defect limited to the period before 1970. While these defects are separate and distinct and may each be found to have caused Marie's death, the special verdict form asked the jury whether "any breach of warranty" caused Marie's death, and did not ask the jury to make separate findings of causation as to the design defect and the warning defect. Because we cannot know whether the jury found that one or both defects caused her death, the breach of implied warranty claim may survive only if the jury were properly instructed as to both theories and the evidence as to both theories is sufficient to support the verdict.⁷

On appeal, Lorillard claims various errors regarding these two theories of liability. First, Lorillard claims that the judge erred by instructing the jury that, in determining whether the product's design was reasonably safe, they "may also

⁷ Where, as here, there are multiple theories of liability, we urge trial judges to ask juries to make findings of causation as to each theory of liability. With separate findings of causation, a jury's award of compensatory damages may be affirmed on appeal on one theory of liability even where an appellate court finds instructional error or insufficiency of evidence as to another theory. Abramian v. President & Fellows of Harvard College, 432 Mass. 107, 119 (2000), quoting Slate v. Bethlehem Steel Corp., 400 Mass. 378, 384 (1987) (where at least one alleged theory of liability is insufficient due to legal error, if "we cannot ascertain on which theory the jury relied, the verdict . . . cannot stand"). See Blackstone v. Cashman, 448 Mass. 255, 271 (2007) (setting aside verdict where we could not say "that the jury's answer to the special question implied a finding" of required element).

consider" whether Newport cigarettes met consumers' reasonable expectations as to safety, rather than that they "must" consider consumers' reasonable expectations. Lorillard contends that the plaintiff was required to prove that Newport cigarettes were more dangerous than consumers reasonably expected, and that the plaintiff offered no evidence to meet this required element of proof. Second, it argues that the plaintiff failed to prove a safer alternative design that would be an acceptable substitute to ordinary smokers, and that therefore the jury could not have found Newport cigarettes to be defective based on their levels of tar and nicotine without finding that all cigarettes are defective, thereby imposing categorical product liability on cigarettes. Third, it claims that the evidence is insufficient to support the jury's finding of a failure to warn, because the health risks from cigarettes were obvious to all before 1970 and there is no duty to warn of an obvious risk. We address each of Lorillard's claims in turn.

a. Reasonable consumer expectations of product safety. By arguing that the judge erred in instructing the jury that they "may" consider whether Newport cigarettes met consumers' reasonable expectations as to safety, rather than that they "must" do so, Lorillard is effectively asking us to adopt the reasonable consumer expectations standard for design defect in comment i to § 402A of the Restatement (Second) of Torts, adopted in 1965 (Second Restatement), rather than the risk-utility balancing standard in § 2 of the Third Restatement.

Under § 402A of the Second Restatement, a seller is liable for physical harm caused to the ultimate user if it "sells any product in a defective condition unreasonably dangerous to the user or consumer or to his property." Second Restatement, supra at § 402A, at 347. Comment i to § 402A recognizes that "[m]any products cannot possibly be made safe for all consumption," and defines an "unreasonably dangerous" product as one that is "dangerous to an extent beyond that which would be contemplated by the ordinary consumer who purchases it, with the ordinary knowledge common to the community as to its characteristics." Second Restatement, supra at § 402A comment i, at 352. Comment i directly addresses when tobacco would be unreasonably dangerous: "Good tobacco is not unreasonably dangerous merely because the effects of smoking may be harmful; but tobacco containing something like marijuana may be unreasonably dangerous." Id.

Under § 2 of the Third Restatement, "[a] product . . . is defective in design when the foreseeable risks of harm posed by the product could have been reduced or avoided by the adoption of a reasonable alternative design . . . and the omission of the alternative design renders the product not reasonably safe." Third Restatement, supra at § 2(b), at 14. Under what the Third Restatement describes as its reasonableness or risk-utility balancing test, a plaintiff must prove that a reasonable alternative design "was, or reasonably could have been, available at time of sale or distribution," that would have reduced the foreseeable risks of harm posed by the product at reasonable

cost, and that the failure to adopt the safer alternative was unreasonable. See Third Restatement, supra at § 2 comment d, at 19. See also Third Restatement, supra at § 2 comment f, at 24. In determining whether a reasonable alternative design was practicable, a trier of fact may consider whether the alternative design is in actual use and whether it is common practice in the industry, but, if expert testimony establishes that "a reasonable alternative design could practically have been adopted, a trier of fact may conclude that the product was defective notwithstanding that such a design was not adopted by any manufacturer, or even considered for commercial use, at the time of sale." Third Restatement, supra at § 2 comment d, at 20.

"A broad range of factors may be considered in determining whether an alternative design is reasonable and whether its omission renders a product not reasonably safe. The factors include, among others, the magnitude and probability of the foreseeable risks of harm[;] the instructions and warnings accompanying the product[;] the nature and strength of consumer expectations regarding the product, including expectations arising from product portrayal and marketing[;]
[t]he relative advantages and disadvantages of the product as designed and as it alternatively could have been designed[;]
the likely effects of the alternative design on production costs; the effects of the alternative design on product longevity, maintenance, repair, and esthetics; and the range of consumer choice among products"

Third Restatement, supra at § 2 comment f, at 23.

While consumer expectations may be considered in the risk-utility balancing, the Third Restatement makes it clear that, in sharp contrast with the Second Restatement, "consumer expectations do not play a determinative role in determining defectiveness." Third Restatement, supra at § 2 comment g, at

27. "The mere fact that a risk presented by a product design is open and obvious, or generally known, and that the product thus satisfies expectations, does not prevent a finding that the design is defective." Id. at 28. Thus, the Third Restatement recognizes the possibility that a product may be made significantly safer through a reasonable alternative design even when consumers, unaware of the alternative design, expect the product to be no safer than it is.

The vast majority of States have adopted the risk-utility balancing test of the Third Restatement rather than the consumer expectations test of the Second Restatement. See Branham v. Ford Motor Co., 390 S.C. 203, 220-222 & nn.11-14 (2010), and cases cited ("By our count 35 of the 46 states that recognize strict products liability utilize some form of risk-utility analysis in their approach to determine whether a product is defectively designed"); 1 D.G. Owen, M.S. Madden, & M.J. Davis, *Products Liability* § 8:4, at 449-451 (3d ed. 2000) ("At the inception of the new millennium, the risk-utility test is indubitably the dominant test for design defectiveness"); Twerski & Henderson, *Manufacturers' Liability for Defective Product Designs: The Triumph of Risk-Utility*, 74 Brook. L. Rev. 1061, 1106-1108 (2009) ("The overwhelming majority of cases that rely on consumer expectations as the theory for imposing liability do so only in res ipsa-like situations in which an inference of defect can be drawn from the happening of a product-related accident"); Note, *The Increasing Acceptance of the Restatement (Third) Risk Utility*

Analysis in Design Defect Claims, 4 Nev. L.J. 609, 616, 625 (2004) ("an increasing number of jurisdictions recognize the usefulness of the Restatement's risk-utility analysis," and "[o]f the jurisdictions that continue to explicitly or implicitly reject the risk-utility analysis set forth by the [Third Restatement], the courts provide little justification for their holdings and bind themselves by nothing other than outdated precedent").

Since 1978, well before the Third Restatement was adopted, we have recognized that consumer expectations are simply a factor, albeit an important factor, in determining whether a product is unreasonably dangerous. See Back v. Wickes Corp., 375 Mass. 633, 642 (1978) (Back) ("fitness" of product "and all others of the same design is a question of degree, depending largely, although not exclusively, on reasonable consumer expectations").⁸ See also Haglund, supra at 748. Cf. Colter,

⁸ In Back v. Wickes Corp., 375 Mass. 633, 640 (1978), we acknowledged that because "[t]he Legislature has made the Massachusetts law of warranty congruent in nearly all respects with the principles expressed in Restatement (Second) of Torts § 402A (1965)[,] the strict liability cases of other jurisdictions [are] a useful supplement to our own warranty case law." We do not believe that, by describing our warranty law as "congruent in nearly all respects with the principles expressed in" § 402A, we intended to adopt the consumer expectations standard in comment i to § 402A as the sole, determinative factor in evaluating whether a product is unreasonably dangerous where, in that same case, we declared that the jury should consider a nonexclusive list of factors in "evaluating the adequacy of a product's design." Id. at 642. See Haglund v. Philip Morris Inc., 446 Mass. 741, 746-747 (2006) ("'Fitness' is a question of degree that primarily, although not exclusively, concerns reasonable consumer expectations" [emphasis added]).

supra at 57 ("manufacturer is in the best position to recognize and eliminate the design defects"). Since 1978, we have also recognized that the determination whether a product is unreasonably dangerous depends on many factors, including "the gravity of the danger posed by the challenged design, the likelihood that such danger would occur, the mechanical feasibility of a safer alternative design, the financial cost of an improved design, and the adverse consequences to the product and to the consumer that would result from an alternative design." Haglund, supra, quoting Back, supra. And since 1978 we have recognized that a product may be found unreasonably dangerous even where all the products in the industry were designed with the alleged defect and where the product conformed to all safety standards in the industry. Back, supra at 643. In short, in determining whether a product's design is unreasonably dangerous, we have been applying a risk-utility balancing standard, where consumer expectations are a factor but not necessarily the determinative factor, since well before the Third Restatement articulated this liability standard.

The defendant argues that we explicitly adopted the Second Restatement's consumer expectations test as the determinative standard of whether a product is unreasonably dangerous in Commonwealth v. Johnson Insulation, 425 Mass. 650, 660-661 (1997) (Johnson Insulation). There, quoting comment i to § 402A of the Second Restatement, we declared, "An article is not unreasonably dangerous merely because some risk of harm is associated with its

use, but only where it is dangerous 'to an extent beyond that which would be contemplated by the ordinary consumer who purchases it, with the ordinary knowledge common to the community as to its characteristics.'" However, this assertion is dictum in the Johnson Insulation case, because the basis for finding the product unreasonably dangerous in that case was a warning defect, not a design defect. Id. at 661 ("both the Commonwealth and Johnson focused on the 'failure to warn' basis for finding a product unreasonably dangerous, and we therefore address only that issue"). In addition, immediately after the assertion relied on by the defendant, we noted in the Johnson Insulation case that the fitness of a product is judged by its "social acceptability, considering such factors as consumer expectations, degree of danger, feasibility and cost of alternative designs, and adverse consequences of alternatives," Johnson Insulation, supra, citing Back, supra at 640-642. Thus, we do not interpret Johnson Insulation to hold that, under Massachusetts law, the reasonable expectations of the ordinary consumer constitute the sole, determinative factor in determining liability for a breach of the implied warranty of merchantability based on defective design. Rather, we continue to uphold the risk-utility balancing standard, where consumer expectations are one of many factors that may be considered in determining whether a product's design is defective.

Therefore, the judge did not err in instructing the jury that they "may," rather than that they "must," consider whether

Newport cigarettes met consumers' reasonable expectations as to safety. And because reasonable consumer expectations are simply one of many factors that may be considered and not necessarily the determinative factor, the plaintiff was not obligated to prove that Newport cigarettes were more dangerous than consumers reasonably expected. See Third Restatement, supra at § 2 comment f, at 23 ("plaintiff is not necessarily required to introduce proof on all of these factors; their relevance, and the relevance of other factors, will vary from case to case").

b. Reasonable alternative design of a cigarette. "To establish a prima facie case of defect, the plaintiff must prove the availability of a technologically feasible and practical alternative design that would have reduced or prevented the plaintiff's harm." Third Restatement, supra at § 2 comment f, at 24. See Colter, supra at 57, quoting Uloth v. City Tank Corp., 376 Mass. 874, 881 (1978) ("there is a case for the jury if the plaintiff can show an available design modification which would reduce the risk without undue cost or interference with the performance of the machinery").

The plaintiff presented evidence at trial that cigarettes are a highly engineered product, that the defendant manipulated its product to give the smoker a particular dose of tar and nicotine, that an addictive level of nicotine was approximately 0.4 to 0.5 milligrams of nicotine per cigarette, and that Lorillard never sold a cigarette with nicotine levels at or below

0.4 milligrams per cigarette.⁹ Dr. Farone testified that there are "some [fifty-seven] or [fifty-eight] different things that one takes into account in designing a cigarette to deliver a certain amount of tar and a certain amount of nicotine." The plaintiff proposed as a reasonable alternative a cigarette without menthol where the carcinogens in the tar are at a level that was relatively safe¹⁰ and where the level of nicotine is nonaddictive. Dr. Farone testified that this could be accomplished by using a "filter that has a very, very high efficiency" and perforating the filter with holes "such that when you suck on it or draw on it, very little smoke comes out," or by using "expanded tobacco," which is tobacco which has had the nicotine removed and which has become very light "so when you burn it, you have very little tar." To avoid the complete loss of flavor, Dr. Farone testified that a cigarette manufacturer such as Lorillard could put a flavor on the filter, "so when the

⁹ There was documentary evidence that, in 1980, the Lorillard Tobacco Company (Lorillard) established a task force whose goal was to "[d]etermine the minimum level of nicotine that will allow continued smoking."

¹⁰ Dr. William Farone testified that many daily activities, including breathing the air, pose some risk of causing cancer, but the risk is so low that we deem it acceptable. It is only when the risk of cancer from the use of a product is so significantly in excess of such an acceptable level of risk that the product may be deemed defective for that reason. Dr. Farone also testified that the level of carcinogenic chemicals in the smoke produced by Lorillard's cigarettes was "excessive," in that the increased risk of cancer to an individual who smoked two packages of these cigarettes per day (forty cigarettes per day) vastly exceeds what the State of California views as an acceptable cancer risk.

air draws back in you get that flavor." He noted that, to design a cigarette with a nonaddictive level of nicotine, "you have to get virtually all of it out" to avoid the risk that smokers will become addicted to the remaining nicotine, and maintain or increase their risk of cancer by puffing harder or smoking more cigarettes.

There was abundant evidence that this alternative was technologically feasible. Patents to extract nicotine from tobacco have existed since the 1920s, and Dr. Farone stated that "certainly by the [19]40s there was technology available to remove nicotine from tobacco." Dr. Cummings testified that it is commercially feasible to design and manufacture cigarettes that have nonaddictive levels of nicotine. He gave as one example "Quest 3," which he described as a nonaddictive cigarette with "very low levels of nicotine" that has been available for sale in stores. When Dr. Farone was asked whether there are commercially successful products on the market with 0.03 milligrams of nicotine or lower, he testified that cigarettes at "the lowest end of the scale . . . have been sold for many years." As examples of cigarettes for sale in the market with extremely low nicotine and tar outputs, he cited "Carlton, as developed by American Tobacco Company . . . ; the NOW cigarette from R.J. Reynolds; and the Cambridge from Philip Morris," each of which contained less than 0.05 milligrams of nicotine in the 1980s, and concluded:

"[A]ll we're saying is that the [safer] cigarettes would

meet the criteria in that they wouldn't have nicotine at sufficient levels to addict you, and they wouldn't have chemicals in it at sufficient levels to cause cancer at a reasonable percentage. Every cigarette could meet that. You could have a Marlboro that meets it. You could have a Newport Menthol that meets it. You've just got to reduce the level in the product using technology that we've been talking about that Lorillard had available . . . to achieve those numbers."

There was also evidence that a safer alternative cigarette was feasible as to cost. According to a 1977 Lorillard memorandum, the manufacturing costs for a hypothesized Lorillard cigarette with "ultra-low tar" and 0.35 milligrams of nicotine per cigarette would be higher than usual, but "these costs [would] be more than offset by the reduction in the amount of tobacco used."

Lorillard, however, contends that, even if a low tar, low nicotine cigarette were a technologically feasible alternative design that could be produced at comparable cost, it was not a reasonable alternative design because "carcinogenic levels of tar and addictive levels of nicotine . . . are inherent in all ordinary cigarettes," and the "inherent risks of smoking . . . cannot be removed without fundamentally altering the nature of the product." The jury rejected this argument through their verdict. Even though Lorillard pressed this point in closing argument, and the judge instructed the jury that in determining whether the product's design was reasonably safe they "should consider, among other factors, . . . any adverse consequences to the product and to the consumer that would result from an alternative design, and whether the proposed modification would

cause undue interference with the performance of the product," the jury nonetheless found that Newport cigarettes were defective and unreasonably dangerous.

Having failed to persuade the jury, Lorillard contends on appeal that the evidence at trial was insufficient as a matter of law to support a finding of a reasonable alternative design. It essentially makes two arguments. First, it contends that the alternative design proffered at trial was not truly a cigarette, and that the jury essentially found that all cigarettes were defective, thereby imposing categorical product liability on all cigarettes. We agree with Lorillard that, in a case where the allegedly defective product is a cigarette, the reasonable alternative design must also be a cigarette, and that a jury may not impose categorical liability on all cigarettes. See Kyte v. Philip Morris Inc., 408 Mass. 162, 172 (1990) (suggesting claim that "all cigarettes are bad" would fail or be preempted). But the evidence was more than sufficient to permit a reasonable jury to conclude that the alternative design proffered by the plaintiff was a cigarette, especially where the plaintiff's experts identified brands of cigarettes that implement the alternative design that have long been sold commercially as cigarettes. We do not accept Lorillard's implicit suggestion that every cigarette, to be a cigarette, must contain levels of tar that cause a high risk of cancer and levels of nicotine that are addictive. The plaintiff in this case provided substantial evidence of cigarettes on the market that do not contain such

levels of tar or nicotine.¹¹

Second, Lorillard contends that, even if the alternative design proffered by the plaintiff were a cigarette, the reduced

¹¹ Because our case law does not permit a jury to impose categorical product liability on all cigarettes, and because we conclude that the jury here did not do so, we need not dwell on Lorillard's argument that Federal law preempts any State law claim that would impose such categorical liability. In Food & Drug Admin. v. Brown & Williamson Tobacco Corp., 529 U.S. 120, 139 (2000), the United States Supreme Court declared that "[a] ban of tobacco products by the [United States Food and Drug Administration (FDA)] would . . . plainly contradict congressional policy." We have just stated that, in a product liability action alleging that a brand of cigarettes was defective in its design, the plaintiff must identify a reasonable alternative design that itself is a cigarette. Therefore, product liability law may not be used in this Commonwealth to categorically impose liability on all cigarette manufacturers. See Kyte v. Philip Morris Inc., 408 Mass. 162, 171-172 (1990) (plaintiffs' claim that cigarette manufacturer committed breach of implied warranty of merchantability by selling cigarettes that were "inherently carcinogenic and addictive" not preempted when, rather than claiming that "all cigarettes are bad," plaintiff relied on "defect or defects specific to" certain brands produced by defendant). Further, in 2009 Congress enacted the Family Smoking Prevention and Tobacco Control Act, Pub. L. 111-31, 111th Cong., 1st Sess., 123 Stat. 1776, which grants sole authority over regulation of the tobacco industry to the FDA but, as codified at 21 U.S.C. § 387p(b) (Supp. IV 2010), expressly states that "[n]o provision of this chapter relating to a tobacco product shall be construed to modify or otherwise affect any action or the liability of any person under the product liability law of any State." See Boerner v. Brown & Williamson Tobacco Co., 394 F.3d 594, 600 (8th Cir. 2005), quoting Cipollone v. Liggett Group, Inc., 505 U.S. 504, 517 (1992) ("Because 'Congress' enactment of a provision defining the preemptive reach of a statute implies that matters beyond that reach are not preempted,' . . . doctrine of conflict preemption is inapposite"). See also Liggett Group, Inc. v. Davis, 973 So. 2d 467, 472 (Fla. Dist. Ct. App. 2007), and cases cited (prevailing position of courts that have addressed issue is that design defect claim against cigarette manufacturer is not preempted by Federal statutes); 5 L.R. Frumer & M.I. Friedman, Products Liability § 56.05[2][c][i], at 56-79 (Matthew Bender, rev. ed. 2012) (in context of tobacco litigation, "post-Cipollone opinions have . . . affirmed that design defect claims are not preempted by [F]ederal statutes").

tar and nicotine in that alternative cigarette so fundamentally alters the nature of the product that no reasonable jury could find that it was a reasonable alternative to Newport cigarettes. Lorillard cannot prevail here merely by asserting that the alternative design is not an "ordinary cigarette," which Lorillard defines as a cigarette with carcinogenic levels of tar and addictive levels of nicotine. We have consistently held that a product may be defectively designed even if the characteristic that makes the product unreasonably dangerous is shared with every other competitive product on the market. See Haglund, supra at 748 ("plaintiff need only convince the jury that a safer alternative design was feasible, not that any manufacturer in the industry employed it or even contemplated it"); Back, supra at 636 (manufacturer of motor home found liable in design defect case even though "vehicle conformed to all product safety standards prevailing in the industry" when vehicle was manufactured). "Thus, warranty liability may be imposed even where the product . . . conformed to industry standards . . . and passed regulatory muster" Haglund, supra. Here, Lorillard's claim that all "ordinary cigarettes" have the same design flaws alleged by the plaintiff does not protect Lorillard from liability, and the judge did not err in refusing to instruct the jury that the plaintiff had to prove that a defect was present in Lorillard's cigarettes that was not present in other cigarettes on the market.

The essential question is not whether the safer alternative

design is an "ordinary cigarette" but whether adoption of the safer alternative design would result in undue interference with the cost or performance of the product, thereby making the alternative unreasonable. See Colter, supra at 57; Uloth v. City Tank Corp., supra at 881. Whether any interference with the cost or performance of the product is "undue" is generally a question for the jury, because many safer alternatives may increase the cost of a product or interfere to some degree with its performance, such as where the addition of a safety shield to a machine tool makes it both more expensive and harder and slower to operate. But the question becomes one of law where, viewing the evidence in the light most favorable to the plaintiff, the interference with the cost or performance of the product is so substantial that no reasonable jury could conclude that it offers a reasonable alternative to consumers of the product. For example, an automobile is not a reasonable alternative to a motorcycle, even if it were proven safer, solely because it has four wheels rather than two. To add two wheels to a motorcycle would create a fundamentally different product and destroy the product's distinct utility in the eyes of any potential consumer. See Third Restatement, supra at § 2 comment f, illustration 9, at 26-27.

Lorillard contends that the safer alternative cigarette proffered by the plaintiff is not a reasonable alternative as a matter of law because, as the plaintiff's experts conceded at trial, "ordinary smokers" -- meaning smokers who are addicted to

the nicotine in tobacco -- will not smoke cigarettes that will not provide them with the nicotine they crave to satiate their addiction, which is why the alternative cigarettes that are commercially sold have a small share of the market. Before we address this argument, we look first to the expert testimony offered at trial regarding what motivates people to smoke. Drs. Benowitz and Cummings testified that those who start smoking do so for social reasons, not for nicotine. Dr. Cummings noted that, at first, "[m]ost people get a little light-headed, they may even get nauseous, and you overcome that usually because your friends are" smoking. He added that when people start to smoke, they are freely making a choice to smoke, and the choice, especially for teenagers, is usually for "psychosocial reasons." However, once one goes beyond the experimentation phase and "you get into the daily use pattern, your choice to smoke becomes diminished by the physiological effects of nicotine on your brain. . . . It's the daily use pattern . . . that distinguishes somebody . . . smoking for nicotine from somebody who is not smoking for nicotine." Dr. Benowitz testified that, with continued exposure to nicotine, "smoking changes from social smoking to drug-reinforced smoking or to pharmacologic smoking." Once people become regular, daily smokers, what keeps them smoking is nicotine addiction. The evidence at trial was that Lorillard manipulated the level of nicotine in its cigarettes to ensure that those who smoked would continue to be addicted to nicotine. The evidence at trial also showed that the addiction

produced by "ordinary" levels of nicotine in cigarettes is so powerful that, in a given year, approximately seventy per cent of cigarette smokers want to stop smoking, but only approximately one-half of those who wish to quit will attempt to quit and, of those who attempt to quit, only approximately three per cent will succeed.¹²

Therefore, the evidence at trial would adequately support a finding that a cigarette with low tar and nicotine was a reasonable alternative to an individual who retained the unimpaired ability to make a rational, informed choice whether to smoke, such as an individual who was considering whether to start smoking or an individual who smoked infrequently or in small quantities. However, the plaintiff's proposed alternative cigarette was not a reasonable alternative to one who already was addicted to nicotine, whose freedom of choice was physiologically impaired by the effects of the nicotine. In short, the evidence in this case is sufficient to support a finding that low tar, low nicotine cigarettes are a safer, reasonable alternative design to the design used by Lorillard in their Newport cigarettes for the subclass of cigarette consumers who are not yet addicted but is not sufficient to support a finding that such cigarettes are a

¹² While there was evidence that tar provides the flavor in a cigarette, there was no expert evidence that people choose whether to smoke or not to smoke for the flavor in the tar. Nor was there evidence that people smoke for menthol, even though some prefer cigarettes with menthol either because of the flavor it provides or because it reduces the harsh sensation in the mouth and throat caused by the nicotine and other alkaloids in the tobacco.

reasonable alternative for the subclass of consumers who are already addicted.

The question, then, is which subclass of consumers should be considered in evaluating the reasonableness of the alternative design? Lorillard's argument, stripped to its essence, is that the chemical in a product that causes consumers to be powerfully addicted to the product can never be found to constitute an unreasonably dangerous defect because no alternative design that did not contain addictive levels of the chemical will satisfy addicts' craving for the chemical and therefore be purchased by those addicted. If this argument were to prevail, addictive chemicals would be the only substance whose presence in a product could not, as a matter of law, be found to constitute a defect in the product's design, because there could be no reasonable alternative design that did not include them. And the more powerfully addictive the chemical, the more it would be protected from product liability.

We decline to place addictive chemicals outside the reach of product liability and give them special protection akin to immunity based solely on the strength of their addictive qualities. To do so would eliminate any incentive for cigarette manufacturers to make safer perhaps the most dangerous product lawfully sold in the market through reasonable alternative designs.¹³ Rather, we conclude that, in determining as a matter

¹³ Even Lorillard's expert on addiction, Dr. Kathleen Brady, agreed with the statements that "in the year 2000 approximately

of law whether the evidence presented at trial was sufficient for a reasonable jury to conclude that the plaintiff's proposed design was a reasonable alternative to the defendant's product, we must determine whether the design alternative unduly interfered with the performance of the product from the perspective of a rational, informed consumer, whose freedom of choice is not substantially impaired by addiction. Applying that standard to the evidence in this case, we conclude that a reasonable jury could find from the evidence presented that a low tar, low nicotine cigarette constituted a safer reasonable alternative to Lorillard's Newport cigarettes.

Few courts appear to have addressed this question, perhaps because the only legally sold product so addictive as to raise the question is nicotine, and the courts that have done so provide little relevant guidance. The United States Court of Appeals for the Seventh Circuit, in evaluating whether "the average consumer at the time in question" fully appreciated the

4.83 million premature deaths were attributed to smoking," and that "in the same year in the United States there were an estimated 435,000 smoking-related deaths, representing 18.1 percent of the total adult mortality." As recently as November 9, 2012, the United States Centers for Disease Control and Prevention announced that "[t]obacco use remains the single largest preventable cause of death and disease in the United States." Current Cigarette Smoking Among Adults -- United States, 2011, 61 Morbidity & Mortality Weekly Report, Nov. 9, 2012, no. 44, at 1. Most notably, the Supreme Court observed in Food & Drug Admin. v. Brown & Williamson Tobacco Corp., 529 U.S. 120, 134-135 (2000), that as of 1996, the FDA had determined that "[t]obacco alone kills more people each year in the United States than acquired immunodeficiency syndrome (AIDS), car accidents, alcohol, homicides, illegal drugs, suicides, and fires, combined."

health risks of smoking, recognized that it needed to "define this imaginary 'average consumer.'" Insolia v. Philip Morris Inc., 216 F.3d 596, 599 (7th Cir. 2000). Recognizing "[n]icotine's addictive grip," the court concluded that "the state of knowledge of the average consumer must be measured before the average person is hooked and is no longer capable of making a rational choice." Id.

The Florida Supreme Court affirmed a jury's finding that a cigarette manufacturer had committed a breach of the implied warranty of merchantability where an alleged defect in the cigarettes' design was the addictive level of nicotine, but the court did not set forth its reasons for affirming this finding. Engle v. Liggett Group, Inc., 945 So. 2d 1246, 1276-1277 (Fla. 2006), cert. denied sub nom. R.J. Reynolds Tobacco Co. v. Engle, 552 U.S. 941 (2007).

In contrast, in Adamo v. Brown & Williamson Tobacco Corp., 11 N.Y.3d 545, 549 (2008), cert. denied, 130 S. Ct. 197 (2009), the New York Court of Appeals declared that the plaintiffs alleging the defective design of a particular brand of cigarettes were required to prove as "an essential element" of their case "that regular cigarettes and 'light' cigarettes have the same utility." The court ruled that "[t]he only 'utility' of a cigarette is to gratify smokers' desires for a certain experience, and plaintiffs did not prove, or try to prove, that light cigarettes perform this function as well as regular cigarettes." Id. The court did not address the issue of

addiction, and therefore did not discuss whether the gratification of "smokers' desires for a certain experience" was the gratification of a craving arising from nicotine addiction, or whether the utility of a cigarette to a nonaddicted consumer is the same as to one who is addicted.¹⁴ Id. at 549-551.

Because cigarettes are unique among lawfully sold products in being so powerfully addictive, it is doubtful that our ruling requiring a reasonable alternative design to be evaluated through the eyes of a rational, informed consumer, whose freedom of choice is not substantially impaired by addiction, will have any significant consequence on liability actions involving any other product. In Haglund, supra at 751-752, we recognized that cigarettes are unusual in that any reasonable use of the product is foreclosed by the dual risks of serious disease and addiction, and we therefore barred cigarette manufacturers in most circumstances from offering as a defense in a product liability action the plaintiff's unreasonable use of cigarettes, the so-called Correia defense. See Correia v. Firestone Tire & Rubber Co., 388 Mass. 342 (1983). Just as we needed in Haglund to adapt our product liability jurisprudence to the inherent danger of

¹⁴ It is worthy of note that, while the New York Court of Appeals ordered the dismissal of the case in part because the plaintiffs had failed to prove the commercial viability of light cigarettes, Adamo v. Brown & Williamson Tobacco Corp., 11 N.Y. 3d 545, 550 (2008), cert. denied., 130 S. Ct. 197 (2009), the trial judge had barred the admission of any evidence of commercial viability, concluding that evidence of commercial viability was irrelevant to the light cigarettes' "feasibility or functionality." Id. at 552 (Pigott, J., dissenting).

smoking, so too do we need here to adapt our product liability jurisprudence to the inherent addictive potency of certain cigarettes. And just as the defendants in that case argued that we had eviscerated the Correia defense, so too does the defendant here contend that we will be paving the way for product liability claims that nonalcoholic whiskey and beer are reasonable alternatives to whiskey and beer. Such fears are wholly unwarranted. In contrast with cigarette smokers, the vast majority of whiskey and beer drinkers are not addicted to alcohol, so limiting the risk-utility evaluation of a reasonable alternative design to the perspective of rational, informed consumers of these products would have no bearing on the risk of product liability for these beverages.

Finally, even though the evidence was essentially undisputed that the tar and nicotine in Newport brand cigarettes caused Marie's lung cancer, Lorillard argues that no reasonable jury could have found that any design defect in Newport cigarettes caused her death because the evidence at trial was that she tried and rejected a brand of cigarettes with lower tar and nicotine. In making this argument, Lorillard misunderstands the meaning of causation in products liability. Where a plaintiff proves that a product is defective, she may establish causation by proving that the defect caused her injury; the plaintiff need not prove that she would have used a reasonable alternative design had one been available. Colter, supra at 63, quoting Correia v. Firestone Tire & Rubber Co., supra at 355 ("Because warranty liability

focuses on whether the product was defective and unreasonably dangerous and not on the conduct of the user or the seller, 'the only duty imposed on the user is to act reasonably with respect to a product which he knows to be defective and dangerous'"); Third Restatement, supra at § 1, at 5 (product manufacturer "who sells or distributes a defective product is subject to liability for harm to persons or property caused by the defect" [emphasis added]).

Here, the plaintiff submitted sufficient evidence for a reasonable jury to conclude that the combined effect of the nicotine and tar consumed by smokers of Lorillard's Newport cigarettes was a substantial factor in bringing about Marie's addiction, lung cancer, and wrongful death, and that her injury would have been reduced or avoided had she smoked cigarettes with a reasonable alternative design that would have resulted in a nonaddictive level of nicotine and a reasonably safe level of carcinogenic tar being consumed by the smoker.¹⁵ Lorillard does not escape liability for its defective product simply because an addicted smoker continued to use a product that sated her addiction rather than switch to a safer product that would not do so.

c. Warning defect for the period before 1970. As noted earlier, the jury found that Lorillard violated the implied

¹⁵ While Lorillard stipulated overall that smoking caused the lung cancer that led to Marie's death, it did not stipulate that the specific levels of nicotine and tar consumed by Marie as a result of smoking its Newport cigarettes caused her death.

warranty of merchantability not only because of a design defect, but also because of a warning defect arising from its failure to provide Marie an adequate warning of the health hazards or addictive properties of Newport cigarettes before 1970.

Lorillard contends that the evidence was insufficient as a matter of law to support this finding because the risks of smoking were widely reported before Marie started smoking in 1960 and there is no common-law duty to warn of a known or an obvious risk.

"Even if a product is properly designed, it is unreasonably dangerous and, therefore, it is not fit for the purposes for which such goods are used, if foreseeable users are not adequately warned of dangers associated with its use." Hayes v. Ariens Co., 391 Mass. 407, 413 (1984). "However, we have recognized that, 'where the danger presented by a given product is obvious, no duty to warn [exists] because a warning will not reduce the likelihood of injury.'" Bavuso v. Caterpillar Indus., Inc., 408 Mass. 694, 699 (1990), quoting Colter, supra at 59. This is consistent with the Third Restatement, which provides, in § 2 comment j, at 31: "In general, a product seller is not subject to liability for failing to warn or instruct regarding risks and risk-avoidance measures that should be obvious to, or generally known by, foreseeable product users."

Marie began to smoke in 1960. In 1965, the United States Congress enacted the Federal Cigarette Labeling and Advertising Act, Pub. L. 89-92, § 4, 89th Cong., 1st Sess., 79 Stat. 282, 283 (Labeling Act), that required all cigarette packages to bear the

warning, "Caution: Cigarette Smoking May Be Hazardous to Your Health." Before this requirement took effect in 1966, there were no warnings on retail packages of Newport cigarettes, on free sample packages of Newport cigarettes, or in any advertising materials for Newport cigarettes. Marie testified that she remembered seeing the warning when it first appeared on cigarette packages.

In 1967, the Federal Trade Commission (FTC) issued a report stating that the warning label on cigarette packages had "not succeeded in overcoming the prevalent attitude toward cigarette smoking created and maintained by the cigarette companies through their advertisements, particularly the barrage of commercials on television, which portray smoking as a harmless and enjoyable social activity that is not habit forming and involves no hazards to health." The report concluded that "[c]igarette commercials continue to appeal to youth and continue to blot out any consciousness of the health hazards." In 1970, Congress amended the mandated warning label on cigarette packages to state:

"Warning: The Surgeon General Has Determined That Cigarette Smoking Is Dangerous To Your Health," with the warning becoming effective on November 1, 1970. Public Health Cigarette Smoking Act of 1969, Pub. L. 91-222, § 4, 91st Cong., 2d Sess., 84 Stat. 87, 88, 90 (1969 Act). The 1969 Act also declared that, apart from this warning, "[n]o requirement or prohibition based on smoking and health shall be imposed under State law with respect to the advertising or promotion of any cigarettes." Id. at

§ 5.¹⁶ Because the 1969 Act preempts any State law claim imposing liability based on a showing that a cigarette manufacturer's "post-1969 advertising or promotions should have included additional, or more clearly stated, warnings," Cipollone v. Liggett Group, Inc., 505 U.S. 504, 524 (1992) (Stevens, J., plurality opinion), the plaintiff limited the failure to warn claims to the period ending in 1969.

Viewing the evidence in the light most favorable to the plaintiff, we conclude that a reasonable jury could find that the risks of cigarette smoking were certainly not obvious before 1966, when the warning on cigarette packages ordered by Congress provided only that "cigarette smoking may be hazardous to your health", and were still not obvious before 1970, when the warning was stiffened to declare that "the Surgeon General has determined that cigarette smoking is dangerous to your health" (emphases added). As the United States Court of Appeals for the Sixth

¹⁶ Congress again changed the required warning on cigarette packages in 1984, this time requiring that each cigarette package carry one of four warnings: "SURGEON GENERAL'S WARNING: Smoking Causes Lung Cancer, Heart Disease, Emphysema, And May Complicate Pregnancy"; "SURGEON GENERAL'S WARNING: Quitting Smoking Now Greatly Reduces Serious Risks to Your Health"; "SURGEON GENERAL'S WARNING: Smoking By Pregnant Women May Result in Fetal Injury, Premature Birth, And Low Birth Weight"; or "SURGEON GENERAL'S WARNING: Cigarette Smoke Contains Carbon Monoxide." Comprehensive Smoking Education Act, Pub. L. 98-474, § 4, 98th Cong., 2d Sess., 98 Stat. 2200, 2201-2202. In 2009, these warnings were once again amended by Congress in the Family Smoking Prevention and Tobacco Control Act, Pub. L. 111-31, § 201, 111th Cong., 1st Sess., 123 Stat. 1776, 1842-1846 (2009 Act), which requires that cigarette packages include one of nine possible warnings, including: "WARNING: Cigarettes are addictive"; and "WARNING: Cigarettes cause cancer."

Circuit declared in Tompkin v. American Brands, 219 F.3d 566, 572 (6th Cir. 2000):

"The pertinent issue here is not whether the public knew that smoking was hazardous to health at some undifferentiated level, but whether it knew of the specific linkages between smoking and lung cancer. Public awareness of a broad-based and ambiguous risk that smoking might be tenuously connected to lung cancer does not suggest 'common knowledge' of the known scientific fact that cigarette smoking is a strong precipitant of lung cancer. . . . It is one thing to be aware generally that a product might have an attenuated and theoretical connection with a deadly disease like lung cancer; it is another altogether to comprehend that it is the cause of an overwhelming majority of lung cancer cases. . . . The 'common knowledge' requirement is emasculated if a defendant may show merely that the public was aware that a product presented health risks at some vague, unspecified, and undifferentiated level."

See Burton v. R.J. Reynolds Tobacco Co., 884 F. Supp. 1515, 1526 (D. Kan. 1995) (rejecting assertion "that because there is general common knowledge that cigarettes are dangerous, users of cigarettes are therefore imputed with knowledge of the extent and nature of all dangers relating to cigarettes"). While the general public may have understood before 1970 that cigarettes posed a general risk to health, the plaintiff presented considerable evidence that Lorillard, along with other cigarette manufacturers, engaged in a calculated effort through advertising and public statements to raise doubts whether the causative link between cigarettes and cancer was scientifically proven, and that the FTC in 1967 acknowledged the success of these efforts. In fact, Lorillard has a bit of chutzpah to claim that it was obvious to the general public by 1960 that cigarettes were addictive and caused cancer when, in 1994, during sworn testimony

before a congressional subcommittee, Andrew H. Tisch, Lorillard's chairman and chief executive officer, declared that he did not believe that cigarette smoking was addictive or caused cancer.

Lorillard also argues that there is no duty to warn one who is aware of the risk, and that Marie knew cigarettes were dangerous when she started smoking in 1960. "The duty to warn . . . does not attach where . . . the plaintiff appreciated the danger substantially to the same extent as a warning would have provided." Carey v. Lynn Ladder & Scaffolding Co., 427 Mass. 1003, 1004 (1998). Viewing the evidence in the light most favorable to the plaintiff, a reasonable jury could conclude that Marie was not aware of the health risks of smoking when she started to smoke in 1960 at the age of thirteen and that, in 1964 when she became aware of the publicity surrounding the Surgeon General's report, she did not appreciate the danger of smoking Lorillard's Newport cigarettes to the same extent as a warning would have provided. Her deposition testimony evidenced the extent to which the cigarette manufacturers' efforts to raise doubts as to whether cigarettes caused cancer succeeded: "you really didn't rely on anyone's opinion as to being the true cause of what causes cancer."

Finally, Lorillard argues that there was no evidence that its failure to warn of the foreseeable dangers arising from the use of Newport cigarettes caused Marie's injury because she did not heed the warnings placed on Lorillard's cigarette packages since 1966. We are not persuaded by this argument. In

Massachusetts, "[t]he law permits an inference that a warning, once given, would have been followed." Harlow v. Chin, 405 Mass. 697, 702-703 (1989). Once a plaintiff establishes that a warning should have been given, the burden is on "the defendants to come forward with evidence tending to rebut such an inference." Wolfe v. Ford Motor Co., 6 Mass. App. Ct. 346, 352 (1978). There was substantial evidence that, by 1966, Marie was addicted to cigarettes. Evidence that an addicted smoker failed to heed a warning that was given to her after she was already addicted is insufficient to rebut the presumption that, had she received adequate warning before she started smoking, she would have heeded the warning and avoided the addiction.

In conclusion, the jury were appropriately instructed as to both a design defect and a warning defect and, although we do not know whether the jury found causation as to one or both defects, the evidence was sufficient to support the jury's finding on either theory.¹⁷

2. Negligence. The jury found that Lorillard was "negligent in the design, marketing and/or distribution of Newport cigarettes," "negligent in failing to warn Marie Evans of

¹⁷ We agree with the judge's factual finding in her decision under G. L. c. 93A that "no evidence was offered that smokers of menthol cigarettes are at any greater risk of disease or become more addicted than smokers of nonmenthol cigarettes." While we conclude for this reason that the plaintiff failed to prove that the addition of menthol to Newport cigarettes is itself a defect, we also conclude that there is no reasonable possibility that the jury found that Lorillard violated the implied warranty of merchantability based solely on the addition of menthol.

the health hazards and/or addictive properties of Newport cigarettes at any time prior to 1970," and that Lorillard "negligently distribute[d] Newport cigarettes by giving samples of such cigarettes to minors, including Marie Evans." However, as with breach of the implied warranty, the jury were not asked to find causation as to each theory of negligence but instead were asked whether "any negligence" of Lorillard was "a substantial factor in causing Marie Evans's lung cancer." Therefore, because we cannot know on which theory or theories the jury found causation, the jury's finding of liability for negligence may stand only if the jury were correctly and adequately instructed on each theory of negligence.

As to negligent design, the judge instructed the jury that they "may" but were "not required to consider whether there was a safer alternative design available." This instruction was timely objected to by the defendant at trial and constituted prejudicial error. In claims alleging negligence in the design of a product, as with claims of a design defect in breach of the implied warranty of merchantability, the plaintiff must show "an available design modification which would reduce the risk without undue cost or interference with the performance of the [product]," and the jury must consider whether a safer alternative design was available in deciding whether the defendant was negligent for failing to adopt that design. Colter, supra at 57, quoting Uloth v. City Tank Corp., supra at 881. See Kotler v. American Tobacco Co., 926 F.2d 1217, 1225

(1st Cir. 1990), vacated on other grounds, 505 U.S. 1215 (1992) (in Massachusetts, "[i]n a design defect case premised on negligence, the existence of a safer alternative design is a sine qua non for the imposition of liability"). We have already declared that a reasonable alternative design must be shown before a defendant may be found liable for breach of the implied warranty of merchantability based on a design defect, and "[a] defendant cannot be found to have been negligent without having breached the warranty of merchantability." Haglund, supra at 747 n.9, quoting Colter, supra at 61. Therefore, we conclude that the jury were incorrectly instructed on the law regarding the plaintiff's claim of negligent design.

As to negligent marketing, the judge provided the jury with no guidance as to the duty a cigarette manufacturer would owe in the marketing of its products, which, if breached, could give rise to a cognizable claim of negligence. Presumably, the plaintiff's theory of negligent marketing was that Lorillard had marketed cigarettes to minors when Marie was a minor, because the plaintiff offered evidence to support this claim. See Kyte v. Philip Morris Inc., 408 Mass. 162, 170 n.8 (1990), citing Killeen v. Harmon Grain Prods., Inc., 11 Mass. App. Ct. 20, 28 (1980) (observing that Appeals Court noted in dicta that "manufacturer's liability might be based on the marketing of a product in a manner calculated to induce direct purchases by children whose use would involve unreasonable risk of injury"). But the plaintiff also offered substantial evidence that Lorillard

marketed its Newport cigarettes to African-American adults. Some of this evidence may have been relevant to show that Lorillard marketed its products to African-American children at a time when Marie, who was African-American, was a child, but the jury were not limited in the use of this evidence. Lorillard timely objected to the imprecise marketing instruction and asked that it be limited to the "give-aways" of cigarettes when Marie was a minor, but the jury were not instructed as to any limitation.

We conclude that the absence of guidance as to the meaning of negligent marketing and of any limitation as to its scope was prejudicial because we cannot know what marketing duty the jury found Lorillard to have breached. Specifically, we cannot know whether the jury found that Lorillard engaged in negligent marketing by targeting African-American adults, which would not constitute a breach of any legal duty.

Where we cannot ascertain on which theory the jury relied in finding causation, the jury's finding of liability as to negligence cannot stand. See Abramian v. President & Fellows of Harvard College, 432 Mass. 107, 119 (2000). See also Blackstone v. Cashman, 448 Mass. 255, 271 (2007). Therefore, we must vacate the jury's finding of liability for wrongful death based on the theory of negligence because we conclude that the jury were incorrectly instructed as to negligent design and inadequately instructed as to negligent marketing.

3. Breach of a voluntarily assumed duty. In 1954, Lorillard joined most of the major cigarette manufacturers in

issuing "A Frank Statement to Cigarette Smokers" (Frank Statement), a full-page advertisement in major newspapers reaching over 40 million people. In this statement, the cigarette manufacturers stated that they would "accept an interest in people's health as a basic responsibility, paramount to every other consideration in our business," that they believed the products they made were "not injurious to health," and that they "always have and always will cooperate closely with those whose task it is to safeguard the public health." Finally, the cigarette manufacturers pledged "aid and assistance to the research effort into all phases of tobacco use and health." Lorillard was a member of both the Tobacco Industry Research Committee (TIRC), which was formed as a result of the Frank Statement, and the Tobacco Institute (TI), which was founded in 1958. The pledge made in the Frank Statement was reaffirmed by the TIRC in 1958 and by the TI in 1977.

The plaintiff submitted substantial evidence at trial that, despite this pledge, Lorillard and its fellow members of the TIRC and the TI executed an intentional strategy of "creating doubt about the health charge without actually denying it." Even though Dr. Cummings testified that, by the end of the 1950s, "there was really no doubt" that cigarette smoking caused lung cancer, and that by 1955 the nicotine in cigarettes was known to be addictive, Lorillard's public statements from the 1950s through at least the 1990s were that cigarettes were not addictive and that it was not proven that cigarettes were

injurious to human health. As noted earlier, this deception culminated in 1994 with Tisch's sworn testimony before a congressional subcommittee that he did not believe smoking causes cancer and that he believed nicotine was not addictive. Lorillard's expert witness as to marketing and sales practices testified that Tisch's statement adequately represented the company's position at that time, and that it was not until 2000 that Lorillard publicly acknowledged that cigarettes cause cancer and other diseases.

At trial, the plaintiff alleged, and the jury found, that by joining in the 1954 Frank Statement, Lorillard voluntarily undertook a duty to research the health hazards of smoking and to disclose accurate information regarding the results of that research to the general public, including Marie. "If a person voluntarily assumes a duty or undertakes to render services to another that should have been seen as necessary for her protection, that person may be liable for harm caused because of the negligent performance of his undertaking." Cottam v. CVS Pharmacy, 436 Mass. 316, 323-324 (2002) (Cottam), quoting Thorson v. Mandell, 402 Mass. 744, 748 (1988). See Second Restatement, supra at § 323, at 135. "Defining the scope of the duty assumed is a fact-specific inquiry" that focuses on the totality of a company's communications with its customers and customers' reasonable understanding, based on those communications, of what, if any, obligation, the company has undertaken to assume. Cottam, supra at 324, 326. In the Cottam case, for instance, we

noted that "[w]hen a pharmacy's communication with a patient concerning a drug is limited to a single label warning of only one side effect, the pharmacy has undertaken a duty to warn correctly as to that specific side effect but has not undertaken a broader duty to warn of all potential side effects." Id. at 325. But where "the patient could reasonably interpret the warning form as a complete and comprehensive list of all known side effects, it is appropriate to impose on the pharmacy a duty commensurate with what it appeared to have undertaken." Id.

Numerous courts have considered whether cigarette manufacturers voluntarily assumed a legal duty by joining the Frank Statement and, to our knowledge, all have concluded that they did not. See Steamfitters Local Union No. 420 Welfare Fund v. Philip Morris, Inc., 171 F.3d 912, 936 (3d Cir. 1999), cert. denied, 528 U.S. 1105 (2000) ("Converting a company's marketing into a special undertaking to inform the public about the known risks of its products would subject every manufacturer that advertises its products to liability for a 'special duty' created by such marketing, and that duty would be violated by every material omission in such advertising"); Baryo v. Philip Morris USA, Inc., 435 F. Supp. 2d 961, 970 (W.D. Mo. 2006) ("Plaintiffs cannot possibly prove that [cigarette manufacturer defendants] undertook such a special duty through advertisements aimed at the general public," and that "same conclusion has been reached in every other cigarette case alleging breach of a special duty of which this Court is aware"); Massachusetts Laborers' Health &

Welfare Fund v. Philip Morris, Inc., 62 F. Supp. 2d 236, 245-246 (D. Mass. 1999) (plaintiff's claims that cigarette manufacturer defendant committed breach of voluntarily assumed duty created by Frank Statement "fail to state viable claims under Massachusetts law"); Kentucky Laborers Dist. Council Health & Welfare Trust Fund v. Hill & Knowlton, Inc., 24 F. Supp. 2d 755, 774 (W.D. Ky. 1998) (although cigarette manufacturer defendants "may have made vaguely promissory statements to the general public," this claim "failed to allege that [d]efendants undertook to do anything specific for any particular person or entity, much less that they assumed a duty to render services of any sort to the [plaintiffs]"); Wright v. Brooke Group Ltd., 652 N.W.2d 159, 178 (Iowa 2002) ("We do not think the defendants' statements that they would report on the results of their research into the health effects of cigarette smoking was an undertaking to render a service to its customers").

We, too, conclude that, by joining the Frank Statement, Lorillard did not voluntarily undertake a legal duty it otherwise did not have to research the health risks of smoking and disclose to the public the results of that research. In contrast with a pharmacy's detailed warning of side effects on a prescription label, where any voluntarily assumed duty is either met or breached at the time of sale, the allegedly assumed duty in this case was indefinite and potentially permanent in duration. The plaintiff asks us to characterize the commitments made in this advertisement as an enforceable eternal promise to the public at

large to research the health effects of smoking and provide full disclosure of its research findings for all time. We do not think a duty so broad in scope and duration can properly arise from a pledge in an advertisement to "aid and assist[]" a research effort. Because we conclude that Lorillard did not voluntarily undertake a special duty, we reverse the jury's findings on this claim.

4. Punitive damages. Because we have vacated the finding of negligence liability and reversed the finding of breach of a voluntarily undertaken duty, we must also vacate the jury's findings that Lorillard was grossly negligent and that Lorillard acted in a manner that was malicious, wilful, wanton, or reckless. We cannot be confident that the jury's findings on these issues were untainted by the aforementioned errors. Consequently, we must also vacate the jury's award of punitive damages for wrongful death under G. L. c. 229, § 2.¹⁸

5. Statute of limitations. Lorillard argues that the plaintiff's claims are time barred because they accrued in 1985, when Marie realized that Lorillard's alleged misconduct had caused her harm after she suffered a heart attack, but the complaint was not filed until 2004. Lorillard waived its right to a jury trial on this defense by not requesting that the jury make a factual finding regarding the accrual of the claim in the

¹⁸ Because we vacate the jury's award of punitive damages, we need not reach the various issues regarding the amount of such punitive damages, and the appropriateness of an award of interest on punitive damages.

special verdict, see Mass. R. Civ. P. 49 (a), 365 Mass. 812 (1974), but preserved its legal claim that the statute of limitations period should have commenced in 1985. The judge impliedly found that the complaint was timely filed by issuing the judgment in favor of the plaintiff on the special verdict, and we review the judge's implied finding for clear factual error or error of law. See Hawco v. Massachusetts Bay Transp. Auth., 398 Mass. 1006, 1006 (1986).

Generally, under our discovery rule, a claim accrues and the statute of limitations clock commences when a plaintiff knows, or reasonably should have known, "that she has been harmed or may have been harmed by the defendant's conduct." Bowen v. Eli Lilly & Co., 408 Mass. 204, 205-206 (1990).¹⁹ However, where, as here, the plaintiff alleges that toxic substances in the defendant's unreasonably dangerous and defective product caused the decedent to die from a particular disease (lung cancer), the claim does not accrue until that particular disease is manifested. See Donovan v. Philip Morris USA, Inc., 455 Mass. 215, 228 (2009). See also Olsen v. Bell Tel. Labs., Inc., 388 Mass. 171, 176 (1983), citing Fearson v. Johns-Manville Sales Corp., 525 F. Supp. 671, 673-674 (D.D.C. 1981) (plaintiff's claim barred by limitations period in part because "claim relate[d] to a single disease," and was therefore "distinguishable from cases in which

¹⁹ The "discovery rule" applies to both negligence and products liability actions. Fidler v. E.M. Parker Co., 394 Mass. 534, 544-545 (1985).

the plaintiffs suffer successive, but distinct, injuries, which may give rise to separate causes of action"); Wilson v. Johns-Manville Sales Corp., 684 F.2d 111, 112 (D.C. Cir. 1982) ("time to commence litigation does not begin to run on a separate and distinct disease until that disease becomes manifest"). "[W]hen a later-discovered disease is separate and distinct from an earlier-discovered disease, the earlier disease does not trigger the statute of limitations for a lawsuit based on the later disease." Pooshs v. Philip Morris USA, Inc., 51 Cal. 4th 788, 792 (2011). See id. at 792 n.1. See also Cigna Ins. Co. v. Oy Saunatec, Ltd., 241 F.3d 1, 9-10 (1st Cir. 2001) ("under Massachusetts law, the fact that there is only one negligent act . . . does not mean that there was only a single cause of action that accrued at the time of the first injury. Instead, if there are multiple injuries, there will be multiple causes of action with multiple dates of accrual if the injuries are 'separate and distinct'"); Fearson v. Johns-Manville Sales Corp., supra at 673-674 (where plaintiff was diagnosed with one disease in 1973 and separate disease in 1979, both arising from exposure to asbestos, claim for injuries arising from latter disease did not accrue until 1979).

Thus, Marie's cause of action for injuries resulting from her lung cancer accrued when she knew or reasonably should have known that she had developed lung cancer from smoking Lorillard's Newport cigarettes. This occurred when she was diagnosed with metastatic small cell lung cancer in December, 2001. See Nicolo

v. Philip Morris, Inc., 201 F.3d 29, 36 (1st Cir. 2000) ("Unlike impairments to breathing, cancer does not lend itself to lay identification. It is most dependent upon medical diagnosis"). The plaintiff's claims in this case are not time barred by the three-year statute of limitations in G. L. c. 260, § 2A, because his complaint was filed on June 28, 2004.

6. Alleged trial errors. Lorillard argues that the judge made numerous errors that denied it a fair trial. We address separately each claim of error.

a. Jury selection. Lorillard contends that the judge conducted insufficient voir dire of the venire because she denied Lorillard's request for the use of a jury questionnaire, refused to ask Lorillard's proposed voir dire questions, and asked only the mandatory questions under G. L. c. 234, § 28, and Mass. R. Civ. P. 47 (a), 365 Mass. 812 (1974). The judge provided each day's venire with a brief summary of the facts of the case clearly indicating that the case would involve determining the liability of a cigarette company for allegedly misleading conduct and for the design of its cigarettes. Among other questions, she asked whether any prospective juror had "any personal interest in this case," whether any prospective juror had "formed or expressed any opinion with regard to this case," and whether any prospective juror was "aware of any reason" why he or she could not or did not "stand indifferent, impartial, with respect to this case." If any prospective juror answered any of these questions affirmatively, the judge conducted an individual

examination of that juror at sidebar, and as a result of this process, many prospective jurors were excused because they identified some reason why they could not be impartial. We conclude that this process satisfied the requirements of G. L. c. 234, § 28, and Mass. R. Civ. P. 47 (a), and that the judge did not abuse her discretion in conducting the voir dire.

Lorillard also argues that the judge denied Lorillard its right to peremptory challenges in violation of Mass. R. Civ. P. 47 (b), as amended, 450 Mass. 1402 (2008), and Rule 6 of the Rules of the Superior Court (2012). Lorillard was given the six peremptory challenges to which it was entitled when fifteen jurors are seated in a civil case. See G. L. c. 234, § 29; Mass. R. Civ. P. 47 (b). However, it had used its final peremptory challenge believing that only fourteen jurors would be seated, and it only thereafter learned that the judge intended to seat a fifteenth juror. We agree with Lorillard that, when a judge represents that fourteen jurors will be chosen and a party exercises all its peremptory challenges based on that representation, a judge should not seat a fifteenth juror without giving the parties an additional peremptory challenge. However, Lorillard has failed to show that, had it been given an additional peremptory challenge, it would have exercised it by striking the fifteenth juror. See Commonwealth v. Leahy, 445 Mass. 481, 496 (2005) (denial of right to exercise peremptory challenge is reversible error where defendant shows that he would have exercised challenge had it been available); Demoulas v.

Demoulas, 428 Mass. 555, 560 (1998), quoting Tamburello v. Welch, 392 S.W.2d 114, 116 (Tex. 1965) ("In a civil case, 'a refusal to allow the proper number of peremptory challenges [is] regarded as immaterial in the absence of a showing that the party affected was required to accept one or more jurors whom he wished to challenge'").

b. Trial judge's impartiality. Lorillard argues that it was denied its due process right to an impartial judge based on two statements made by the judge during trial. We conclude that neither of these statements reasonably suggests that the judge was partial.

The first statement relied on by Lorillard occurred when the judge informed the parties that she thought that the findings or the judgment in Engle v. Liggett Group, Inc., 945 So. 2d 1246 (Fla. 2006) (Engle), could be used by the plaintiff for offensive collateral estoppel. The context of the judge's remarks was that the plaintiff did not appear to seek to use the findings in Engle for that purpose, and the judge was not sure for what purpose the plaintiff sought to use these findings if not for offensive collateral estoppel. These remarks did not affect the verdict, because the findings in Engle were not communicated to the jury, the judge denied the plaintiff's request for a directed verdict based on the theory of offensive collateral estoppel, and the jury's verdict obviated the need for the issue to be addressed in a motion for judgment notwithstanding the verdict.

Lorillard also claims that the judge demonstrated her

partiality when she considered the defendant's motion for directed verdict. The context of her challenged remark is that the defendant had just filed its motion for a directed verdict, and the judge was reading the defendant's reference in its brief to Second Restatement, supra at § 402A comment i, at 352, which states that "[g]ood tobacco is not unreasonably dangerous merely because the effects of smoking may be harmful." The judge said that this was the first time she had seen something in a Restatement that she did not agree with. Defense counsel noted that knives, dynamite, and guns were products that were inherently dangerous but not unreasonably dangerous. The judge responded, "Well, if they have a use that is reasonable. What's the use of cigarettes but to cause cancer in their present form?" The judge's question was poorly framed, but it offered defense counsel an opportunity, which defense counsel used, to explain to the judge the benefits people obtain from smoking and the need to avoid categorical liability. We conclude that the question does not reflect partiality of the judge. The judge was familiar with our decision in Haglund, supra at 751, where we declared that cigarettes are distinct from other inherently dangerous products because "any reasonable use of the product whatsoever [is] foreclosed by the nature of the product itself."

c. Characterization of judicial findings in another case as an expert's conclusion. Lorillard argues that the judge denied the defendant a fair trial by directing the plaintiff to misrepresent findings from United States v. Philip Morris USA,

Inc., 449 F. Supp. 2d 1 (D.D.C. 2006), aff'd in part, rev'd in part, 566 F.3d 1095 (D.C. Cir. 2009), cert. denied sub nom.

Lorillard Tobacco Co. v. United States, 130 S. Ct. 3502 (2010) (Philip Morris), as the findings of an "expert" to impeach Leonard H. Jones, Lorillard's director of direct marketing and market research. On direct examination, Jones testified that "Lorillard does not market Newport cigarettes or any of its cigarettes to youth or kids." Plaintiff's counsel informed the judge that he wanted to impeach Jones with findings to the contrary made by the trial judge in Philip Morris. The judge would not let him refer to the Federal judge's findings but instead suggested that the plaintiff's attorney "phrase it in terms of an expert," and refer to the judge's findings as the findings of an "expert." Over objection, the plaintiff's attorney asked Jones questions in this format, such as:

"Would it affect your opinion if an expert concluded the following after studying Lorillard's market practices: For several decades Lorillard has falsely denied that its marketing efforts target young people. Lorillard falsely claimed that all of its marketing is aimed only at encouraging the brand loyalty of adult smokers. Lorillard also falsely states that marketing has no effect on youth initiation and smoking behaviors? . . . Knowing that an expert, after studying Lorillard's marketing practices, reached that conclusion, would that affect your opinions with respect to Lorillard's marketing?"

Lorillard argues that the judge erred in allowing the judge in Philip Morris to be characterized in this cross-examination as an "expert." We agree.

In Commonwealth v. Sneed, 413 Mass. 387, 396 (1992) (Sneed), we adopted Proposed Mass. R. Evid. 803 (18), which provides:

"To the extent called to the attention of an expert witness upon cross-examination, statements contained in published treatises, periodicals, or pamphlets on a subject of history, medicine, or other science or art, established as a reliable authority by the testimony or admission of the witness or by other expert testimony or by judicial notice . . . may be read into evidence but may not be received as exhibits."²⁰

By suggesting that the findings in Philip Morris be phrased as the conclusions of a hypothetical expert, the judge intended to allow the plaintiff's attorney to confront the witness with the Federal judge's findings regarding Lorillard's marketing practices but avoid the prejudice that might result from the jury learning that these were findings made by a Federal judge. The problem with this solution is that a judge's findings of fact, which must be based on the evidence presented in a specific case, do not have the same indicia of reliability as statements in a published treatise, periodical, or pamphlet, and a judge does not become a reliable authority on the subject of cigarette marketing by virtue of making judicial findings on the subject. Because a judicial opinion is not capable of being established as a reliable authority, portions from it may not be read into evidence under Proposed Mass. R. Evid. 803 (18). See Brusard v.

²⁰ In Commonwealth v. Sneed, 413 Mass. 387, 396 (1992), we stated:

"Admission in evidence of a statement from a treatise of the kind referred to in proposed rule 803 (18), whose authenticity and reliability are shown, which was not written for use in litigation, and which expresses an expert opinion on a subject relevant to the case on trial, will tend to enhance, rather than detract from, the truth-finding function."

O'Toole, 429 Mass. 597, 602-603 (1999) ("rule contemplates that an authored treatise, and not the statements contained therein, must be established as a reliable authority"). Accord W.G. Young, J.R. Pollets, & C. Poreda, Evidence § 803.18, at 188 (2d ed. 1998) ("party seeking to admit the learned treatise [on cross-examination] must first lay a foundation that the treatise is a reliable authority").

While the judge erred in allowing the Federal judge's findings to be read in evidence as the hypothetical conclusions of an unnamed "expert," the error was not consequential. In answer to the plaintiff's counsel's question whether his opinion as to Lorillard's allegedly negligent marketing practices would be affected if an unidentified expert had made the stated conclusions, Jones answered, "I don't know that it would, because I don't believe that to be true." Not only was Jones's opinion unaffected by this line of questioning, but the jury were unlikely to be swayed by the hypothetical opinions of an unidentified "expert." In any event, the challenged line of cross-examination focused solely on the plaintiff's claims of negligent marketing and distribution, and we have already vacated the jury's liability findings as to these claims on other grounds.

d. Admission of evidence regarding African-American and youth marketing. Lorillard argues that the judge erred in admitting "racially-charged and inflammatory" and "entirely irrelevant" evidence, which was likely to inflame the jury's

emotions, that Lorillard marketed cigarettes to the African-American community, and that she therefore denied Lorillard a fair trial.

Because the plaintiff alleged that Lorillard's negligent distribution of Newport cigarettes to minors was a substantial factor in causing Marie's lung cancer and death and because Marie was an African-American child in the 1950s and early 1960s, the judge did not err in admitting evidence that Lorillard marketed cigarettes to the African-American community, and to African-American children, when Marie was a minor. Because the plaintiff alleged negligent failure to warn and a warning defect in breach of the implied warranty of merchantability before 1970, and because Lorillard's cigarette advertising before 1970 was relevant to these claims to the extent it tended to show whether the risks of smoking were obvious to everyone (and to Marie), and if not, whether such risks were adequately warned of during that time period, the judge did not err in admitting evidence that Lorillard marketed cigarettes to the African-American community before 1970. But Lorillard is correct that, over objection, the judge also admitted evidence of Lorillard's marketing of cigarettes to the African-American community after 1970, and did not limit the jury's consideration of this evidence. We conclude that the admission of this evidence was error, because it was irrelevant to any of the claims in this case. However, we also conclude that we have eliminated any material risk of prejudice arising from the admission of this evidence by vacating the

jury's finding of negligence liability, because the risk posed by the admission of this evidence was that a jury might mistakenly understand that a cigarette manufacturer could be found negligent simply for marketing to the African-American community. We see no material risk that the admission of this evidence prejudiced the jury's finding of a breach of the implied warranty of merchantability.

The defendant also claims that the judge erred in admitting evidence that Lorillard marketed and distributed cigarettes to minors after Marie became an adult. The admission of such evidence would not be error if the judge were to instruct the jury that they could consider this evidence only to the extent they found it relevant to whether Lorillard marketed and distributed cigarettes to Marie when she was a minor, such as if such evidence reflected a continuing policy, pattern, or practice of Lorillard that began when Marie was a minor. No such limiting instruction was given, but here, too, we have eliminated any material risk of prejudice by vacating on other grounds the jury's finding of negligence liability. Again, we see no material risk that the admission of this evidence without a limiting instruction prejudiced the jury's finding of a breach of the implied warranty of merchantability.

e. Admission of 1994 congressional testimony of Lorillard's then chairman and chief executive officer. Lorillard contends that the judge erred in admitting portions of the 1994 testimony of Andrew H. Tisch, then chairman and chief executive officer of

Lorillard, to a congressional subcommittee where he stated under oath that he did not believe cigarette smoking caused cancer, and that he believed nicotine was not addictive. Lorillard argues that this evidence was irrelevant because there was no evidence that Marie actually heard or learned of this testimony. We have already noted the relevance of this testimony -- it strongly rebuts Lorillard's assertion that the risks of smoking were so well known before 1970 that it had no duty to warn.

Lorillard also argues that, under the United States Supreme Court's Noerr-Pennington doctrine, the 1994 testimony "cannot be used as a basis for liability." See United Mine Workers of Am. v. Pennington, 381 U.S. 657 (1965) (Pennington); Eastern R.R. Presidents Conference v. Noerr Motor Freight, Inc., 365 U.S. 127 (1961) (Noerr). In Noerr, the Court declared that the antitrust laws should not be interpreted to prohibit private parties from petitioning Congress to take legislative action, even if the motivation of such petitioning efforts was to accomplish a restraint of trade. Id. at 137-138 ("To hold that the government retains the power to act in this representative capacity and yet hold, at the same time, that the people cannot freely inform the government of their wishes would impute to the Sherman Act a purpose to regulate, not business activity, but political activity, a purpose which would have no basis whatever in the legislative history of that Act"). In Pennington, supra at 670, the Court extended this principle to the petitioning of executive officials, declaring that "[j]oint efforts to influence public

officials do not violate the antitrust laws even though intended to eliminate competition." "While the doctrine originated as a limit on antitrust liability, Noerr-Pennington has been extended by analogy to protect petitioning activity challenged under other [F]ederal statutes," although "[t]he extent of Noerr-Pennington's application to [S]tate common law torts such as negligence and product liability is largely unresolved." Hamilton v. Accu-tek, 935 F. Supp. 1307, 1317 (E.D.N.Y. 1996).

Here, the plaintiff did not allege at trial that Tisch's testimony before the congressional subcommittee was the basis of any of the plaintiff's claims. Rather, portions of Tisch's testimony were offered as evidence in support of these claims.²¹ The Supreme Court in Pennington specifically declared that the doctrine did not bar the admission in evidence of petitioning efforts, provided that it was clear to the jury that petitioning efforts to influence public officials is not itself illegal. See Pennington, supra at 670 n.3 ("It would of course still be within the province of the trial judge to admit this evidence, if he deemed it probative and not unduly prejudicial"). Here, there was no risk of juror confusion. The judge did not err in admitting this evidence.

f. Exclusion of testimony regarding the color of cigarette packages and market share. Lorillard contends that the judge

²¹ We therefore need not resolve here whether the Noerr-Pennington doctrine applies to negligence and product liability torts.

erred by precluding Jones's testimony regarding the color of packages of Kool and Salem brand cigarettes, products not manufactured by Lorillard, in the late 1950s and early 1960s. Lorillard sought to offer this evidence to show that the packages of cigarettes that Marie and other witnesses recalled being distributed to children in Orchard Park when Marie was a child were not Newport brand cigarettes, but were more likely Kool or Salem brand cigarettes, which were also mentholated.

The judge did not abuse her discretion in precluding this evidence. Jones could not testify as a fact witness on the issue because he lacked personal knowledge of the colors of cigarette packages during the relevant time period. He could not testify as an expert witness because the observable color of a cigarette package is not a proper subject matter for expert opinion. See Simon v. Solomon, 385 Mass. 91, 105 (1982); Mass. G. Evid. § 702 (2013). Although his testimony on this issue was not admissible, the judge correctly allowed Lorillard to submit documentary exhibits tending to show the color of the packages of Newport, Kool, and Salem cigarettes during the relevant time period.

Lorillard also contends that the judge erred by precluding Jones's testimony about the proportional market shares of Newport, Kool, and Salem cigarettes in the relevant time period. Lorillard argues that this testimony was admissible to rebut Marie's testimony that part of the reason she started smoking Newports was because they were "what [she'd] see everybody else smoking," and to prove it unlikely that the sample packages Marie

received actually contained Newport cigarettes. We conclude that the judge acted within her discretion in precluding Jones from answering the questions of Lorillard's counsel as to his opinion on "how well Newport sold compared to Kool and Salem in the late 1950s" and "what the market share of menthol cigarettes was in the year 1960." These questions asked Jones to give his opinion on the over-all, nationwide market share of each of the brands of menthol cigarettes. The judge did not abuse her discretion in sustaining the objections to these questions.

g. Plaintiff's counsel's suggestion that defense counsel intended to deceive the jury. One of Lorillard's primary defenses during trial to the plaintiff's claim of negligent marketing and distribution was that the free sample packages of cigarettes that Marie and some of the plaintiff's witnesses remembered receiving could not have been Newport cigarette packages because such witnesses described the packages as being a "pretty green color," "Kelly greenish," or "bright green" when the actual color of Newport packages was turquoise blue. During the direct examination of Jones by Lorillard's counsel, the witness was shown exhibit no. 914, a color photocopy of an advertisement for Newport cigarettes in the August, 1965, issue of Ebony Magazine, and was asked to state the color of the package of Newport cigarettes contained in the image. He described the color as turquoise blue; we have examined the advertisement depicted in this photocopy and find the color of the package to be closer to a Navy blue. In his cross-

examination of Jones, the plaintiff's counsel showed the witness exhibit no. 914A, an actual August, 1965, issue of Ebony Magazine, where the color of the Newport cigarette package was closer to green than it was in exhibit no. 914. Counsel then asked the witness whether the cigarette package depicted in exhibit no. 914, the photocopy, was "a fair representation of the color of the Newport package," when compared to exhibit no. 914A. Jones answered, "It is not because a copy will never match the original ad." Plaintiff's counsel asked: "How do you know? How do you know that your lawyers were not trying to deceive this jury?" Lorillard's counsel objected, and the judge sustained the objection. Later, Lorillard moved for a mistrial on the ground that this last question impugned the integrity of Lorillard's attorneys in the eyes of the jury. The judge denied the motion but offered to consider a written request for a limiting instruction.

We review a judge's decision not to declare a mistrial for abuse of discretion. Fialkow v. DeVoe Motors, Inc., 359 Mass. 569, 572 (1971). We find no abuse of discretion here. The question was improper as phrased, but the inquiry itself was not improper. The Newport cigarette package in the actual advertisement was far closer to green than the dark blue package depicted in the photocopy of the advertisement. The witness essentially attributed the difference solely to a poor color photocopier, but it was fair game for the plaintiff's counsel to challenge that explanation. The judge sustained the objection in

front of the jury and invited defense counsel to suggest a limiting instruction. In her final instructions to the jury, the judge stated that "a question which is not answered[] is not to be considered by you at all." In a long, hard-fought trial, the judge acted within her discretion in deciding that the jury's impartiality would not be tainted by the plaintiff's counsel's single question suggesting that Lorillard's counsel had knowingly put in evidence a photocopy of an advertisement where the Newport cigarette package appeared more blue and less green than it actually was.

h. Admission of contested exhibits. Lorillard contends that it was denied a fair trial because the judge admitted over 150 of the plaintiff's exhibits "en masse" without ruling on objections to them and denied Lorillard the chance to raise specific objections to them. The truth is more complicated.

The parties proposed to offer more than 1,000 exhibits in evidence, and agreed on the admissibility of few of them. The plaintiff proposed, and the judge accepted, a procedure in which all proposed exhibits would be marked for identification by a number followed by "ID" and, when an exhibit was admitted in evidence, the "ID" would be struck. To address the huge volume of exhibits, the judge directed the parties to sort the proposed exhibits into categories, and she conducted a hearing to rule on the admissibility of the various categories. Lorillard's counsel agreed with this procedure, stating, "I understand that, given the bulk of the documents, that's an efficient way to do it." He

said he understood the judge was ruling on the admissibility of these categories of documents but asked if he was precluded from later raising an objection as to a specific document if, for example, he were to contend that its prejudicial value far outweighed any probative value. The judge said that counsel was not precluded from renewing a specific objection.

During trial, Lorillard's counsel informed the judge of his understanding that each proposed exhibit was "agreed," "admitted over an objection," or "marked for ID." Only the last category of documents would continue to have "ID" written on the sticker, reflecting that the parties had yet to agree on the admissibility of such documents and the judge had not yet ruled on their admission. The judge and the plaintiff understood that, once a document was admitted over objection, it was admitted in evidence, regardless whether it was shown to a witness. After trial began, however, Lorillard articulated its understanding that no document admitted over objection would go to the jury unless it was shown to a witness and Lorillard had an opportunity to make a specific objection. The judge, in essence, ruled that, once a document was admitted over objection, it was admitted in evidence, regardless whether it was shown to a witness at trial, but she offered Lorillard the opportunity to renew its objection to any specific exhibit, saying, "We can do that all day long if you want." The next day, rather than offer any argument that specific exhibits should not have been admitted, Lorillard rested on its general position that "[i]f exhibits were admitted over

objection and not offered through a witness," such exhibits were not in evidence.

To be admissible in evidence, a document must be both relevant and authentic. See Mass. G. Evid. §§ 401, 901 (2013). "Authenticity is usually proved by testimony of a witness either '(1) that the thing is what its proponent represents it to be, or (2) that circumstances exist which imply that the thing is what its proponent represents it to be.'" Commonwealth v. Williams, 456 Mass. 857, 868 (2010), quoting Commonwealth v. Nardi, 452 Mass. 379, 396 (2008). "The foundational requirement of authentication is a preliminary question of fact for the trial judge." Mass. G. Evid. § 901 note, at 256 (2013), citing Howe v. Boston, 311 Mass. 278, 281-282 (1942). Authenticity may "be stipulated or else proved like any other fact." Commonwealth v. LaCorte, 373 Mass. 700, 704 (1977).

A judge reasonably may determine the relevance of documents by category, but the authenticity of a document, if not stipulated, generally must be decided individually based on the evidence at trial. If authenticity is truly at issue, the document should not be admitted in evidence until the judge has made a preliminary finding of fact that the document is authentic, generally based on the evidence at trial. Therefore, if authenticity were truly at issue, Lorillard is correct that a document should not have been admitted until its authenticity was established. But the judge reasonably understood that Lorillard's objections to the vast majority of these documents

were not based on authenticity. Before the judge ruled on the admissibility of the various categories of documents, Lorillard's attorney stated, "We have stipulated to the authenticity of exhibits that we can in good conscience stipulate to, which means there are only a few that we didn't stipulate to."²² When Lorillard later filed a "Statement Concerning Objections to Plaintiff's Exhibit List," along with an attached "spreadsheet showing the status of Lorillard's objections to [p]laintiff's exhibits," it noted that, unless otherwise indicated on the exhibit spreadsheet, it did "not have authenticity objections to documents on [p]laintiff's [e]xhibit list." After reviewing the exhibit spreadsheet in its entirety, we have identified only two exhibits that Lorillard marked as "[a]dmitted over objection" to which Lorillard raised objections based on authenticity: exhibits nos. 307 and 432. Even though the judge provided Lorillard with multiple opportunities to raise and argue specific objections, the only notice Lorillard gave of its objections as to the authenticity of these two documents was in two cells of a thirty-nine page spreadsheet. Therefore, we conclude that Lorillard waived its objection to the authenticity of these two documents. In any event, we have examined these two documents and conclude that there is no reasonable risk that the jury's

²² Before trial, Lorillard specifically challenged the authenticity of two documents in a motion in limine, and the judge ruled that neither document could be referenced in opening statements, reflecting her understanding that the admissibility of these documents depended on evidence at trial demonstrating their authenticity.

verdict regarding the implied warranty of merchantability claim or the judge's ruling on the G. L. c. 93A claim was affected by the admission of these two exhibits.

i. Plaintiff's voluntary dismissal of the civil battery claim. The plaintiff alleged that Lorillard committed a civil battery by distributing free Newport cigarettes to Marie when she was a minor, and the claim reached the jury, with question five of the special verdict form asking whether Lorillard committed a civil battery and question six asking whether such a civil battery was a substantial factor in causing Marie to develop lung cancer. After several days of deliberation, the jury submitted the following question to the judge: "If we are at a 10 to 4 impasse on Question 6, how would you advise us to proceed, or can you give us more information/direction?" The judge responded to the jury: "If and when you are at an impasse and tell me that, then I will have some further instructions for you." The jury then sent out a note saying: "We are at an impasse, and can you give us further instructions." The plaintiff then orally moved to dismiss with prejudice the civil battery claim, and after argument, the judge allowed the motion over the objection of the defendant and informed the jury that "the claim of civil battery has been withdrawn from consideration" and that the jury need not answer questions five and six.

Lorillard contends that allowing the dismissal of the claim and informing the jury that they need not decide the questions pertaining to that claim was prejudicial error. We conclude that

it was neither error nor prejudicial. The judge acted within her discretion under Mass. R. Civ. P. 41 (a) (2), 365 Mass. 803 (1974),²³ in allowing the plaintiff's motion to dismiss the claim and, once allowed, there was no reason for the jury to devote their time in deliberations to deciding questions that had been rendered moot by the dismissal. Nor do we see how the defendant reasonably could have been prejudiced as to the remaining claims by the jury learning during deliberations that the civil battery questions had been "withdrawn from consideration." Finally, allowing the dismissal of the plaintiff's civil battery claim did not result in the jury improperly considering evidence no longer relevant to any claim before them, as all the evidence supporting the civil battery claim was also relevant to the plaintiff's claim of negligence on the theory of negligent distribution. Both claims were premised on Lorillard's distribution of free samples of its Newport cigarettes to Marie.²⁴

²³ Rule 41 (a) (2) of the Massachusetts Rule of Civil Procedure, 365 Mass. 803 (1974), provides in relevant part that "an action shall not be dismissed at the plaintiff's instance save upon order of the court and upon such terms and conditions as the court deems proper." When viewed in context with Mass. R. Civ. P. 41 (a) (1), 365 Mass. 803 (1974), which allows a plaintiff to dismiss his or her action "by filing a stipulation of dismissal signed by all parties who have appeared in the action," rule 41 (a) (2) is clearly intended to allow the plaintiff to dismiss his own claim despite a defendant's opposition to the dismissal.

²⁴ We find similarly meritless Lorillard's argument that the judge coerced the jury to return with a verdict rather than a deadlock by instructing the jury:

"Before the jury sends me any more notes or asks me any more questions, I plan to take a partial verdict if, and only if,

7. Compensatory damages. The defendant contends that the award of compensatory damages, even after being reduced by the remittitur, was excessive.

The judge granted Lorillard's motion for remittitur in part, finding that, "[g]iven the extent of [Marie's] pain, suffering and death," a compensatory award of \$25 million for Marie's conscious pain and suffering would be "appropriate, reasonable and just," and that "the largest reasonable compensatory award for [the plaintiff's] significant loss is \$10 million." "[A]n award of damages must stand unless to make it or to permit it to stand was an abuse of discretion on the part of the court below, amounting to an error of law." Mirageas v. Massachusetts Bay Transp. Auth., 391 Mass. 815, 822 (1984), quoting Bartley v. Phillips, 317 Mass. 35, 43 (1944). "It is an error of law if 'the damages awarded were greatly disproportionate to the injury

the jury [have] reached a final answer to any of the special verdict questions. So if you have reached a final answer by at least 12 out of the 14 of you on any of the special verdict questions, please so advise the court officer before you send me another note or any other question.

"Now, my advising you of my intention to take a partial verdict of any answers that you have reached a final decision on by 5/6 of you before you send me any more questions or notes is not intended in any way to influence your verdict or to signal whether or how you should decide this case" (emphasis added).

Reviewing this instruction in its entirety, it is clear that the judge was cognizant of the risk that her words could have a coercive effect on the jury, and she took precautions to address such a risk. Therefore, we conclude that the judge's instruction was not coercive and did not result in any prejudice to Lorillard.

proven or represented a miscarriage of justice.'" Labonte v. Hutchins & Wheeler, 424 Mass. 813, 824 (1997), quoting doCanto v. Ametek, Inc., 367 Mass. 776, 787 (1975). We find no abuse of discretion; the judge's remittitur award was not disproportionate to the injuries suffered and did not represent a miscarriage of justice.

8. The judge's decision under G. L. c. 93A. On at least two separate grounds, the judge found that Lorillard committed unfair or deceptive acts or practices in trade or commerce in violation of G. L. c. 93A, § 2, and that Lorillard was liable to Marie's estate under G. L. c. 93A, § 9, because such acts or practices caused her injury. First, the judge found that Lorillard committed a breach of the implied warranty of merchantability and was negligent in the "design, marketing, and/or distribution" of its cigarettes. The unfortunate phrasing of this finding of negligence makes the judge's decision as unclear as the jury's verdict on this issue, and prevents us from being certain that the judge found Lorillard negligent in the design of its cigarettes. Further, because "this c. 93A action is limited to events after 1979, when c. 93A was amended, see Hershenow v. Enterprise Rent-A-Car Co. of Boston, Inc., 445 Mass. 790, 797-798 (2006)," the judge could not properly have found that Lorillard's negligent marketing or distribution of cigarettes to minors caused injury to Marie after 1979, because she was an adult by 1979. Because the judge's finding of negligence is so unclear, and because a finding of causation

arising from negligent marketing or distribution is not supported by the evidence if "limited to events after 1979," we must vacate her negligence finding in its entirety.²⁵

Second, the judge found that Lorillard violated G. L. c. 93A because it committed a breach of a duty that it voluntarily assumed when it joined the Frank Statement to research the health hazards of smoking cigarettes and to provide accurate information to its consumers regarding that research. Because we hold that no such duty was voluntarily assumed, see part 3 supra, we conclude that the judge's finding of a violation of c. 93A cannot rest on this ground.

In addition, the judge found that the application of offensive collateral estoppel was fair and adopted certain findings of the United States District Court for the District of Columbia in the case of United States v. Philip Morris USA, Inc., 449 F. Supp. 2d 1 (D.D.C. 2006) (Philip Morris).²⁶ Lorillard

²⁵ In Maillet v. ATF-Davidson Co., 407 Mass. 185, 190 (1990), we concluded that joint findings of breach of the implied warranty of merchantability and negligence are legally sufficient to constitute a violation of G. L. c. 93A, § 2. Because we are remanding the case, we decline, as we did in Maillet, to decide whether liability should be "imposed automatically under G. L. c. 93A whenever a defendant has violated the warranty of merchantability," even where there is no finding of negligence. See id.

²⁶ It is not clear from the judge's decision whether the adopted findings constitute a separate ground of liability under G. L. c. 93A or simply facts that support the other two grounds. The judge initially declared that these findings "furnish an independent basis for liability in this case," but later declared that she adopted these findings as "an additional basis in support of [her] conclusions of law."

argues that the judge erred in applying offensive collateral estoppel because she "not only failed to recognize the fundamental unfairness of ignoring Lorillard's many trial victories," but also never addressed the requirement that the determination of the issues in question be "essential" to the judgment in the prior case.

"When a State court is faced with the issue of determining the preclusive effect of a Federal court's judgment, it is the Federal law of res judicata which must be examined." Anderson v. Phoenix Inv. Counsel of Boston, Inc., 387 Mass. 444, 449 (1982), and cases cited. Here, since the preclusive effect of a decision of the United States District Court for the District of Columbia is at issue, we turn to the Federal law of res judicata.

In this case, the type of res judicata applied by the judge was issue preclusion in the form of offensive collateral estoppel. "The offensive use of collateral estoppel 'occurs when a plaintiff seeks to prevent a defendant from litigating issues which the defendant has previously litigated unsuccessfully in an action against another party.'" Matter of Cohen, 435 Mass. 7, 15 (2001), quoting Bar Counsel v. Bar Overseers, 420 Mass. 6, 9 (1995). Under Federal law:

"A party seeking to invoke the doctrine of collateral estoppel must establish that (1) the issue sought to be precluded in the later action is the same as that involved

The judge also adopted certain findings of the Florida Supreme Court in Engle v. Liggett Group, Inc., 945 So. 2d 1246 (Fla. 2006), but the judge later withdrew these findings from her decision regarding the G. L. c. 93A claim.

in the earlier action; (2) the issue was actually litigated; (3) the issue was determined by a valid and binding final judgment; and (4) the determination of the issue was essential to the judgment."

Ramallo Bros. Printing, Inc. v. El Día, Inc., 490 F.3d 86, 90 (1st Cir. 2007), citing Keystone Shipping Co. v. New England Power Co., 109 F.3d 46, 51 (1st Cir. 1997). Further, "in cases where . . . the application of offensive [collateral] estoppel would be unfair to a defendant, a trial judge should not allow the use of offensive collateral estoppel." Parklane Hosiery Co. v. Shore, 439 U.S. 322, 331 (1979). See Haran v. Board of Registration in Med., 398 Mass. 571, 577 (1986), quoting Aetna Cas. & Sur. Co. v. Niziolek, 395 Mass. 737, 745 (1985) ("When determining whether the offensive use of collateral estoppel has afforded a defendant due process, '[f]airness is the decisive consideration'").

We conclude that the first requirement for offensive collateral estoppel was not met in this case: the issues decided in this case are not the same as those decided in the Philip Morris case. As the judge stated, the plaintiff alleged that Lorillard violated G. L. c. 93A in three ways: "1) it breached the implied warranty of merchantability; 2) it breached a duty, which it voluntarily assumed, to research the health hazards of smoking and provide accurate information of the research to the public; and 3) it failed to make a reasonable settlement offer upon receiving [the plaintiff's] c. 93A demand letter." The third theory was rejected by the judge and is not contested on

appeal. The second theory we reject as a matter of law. See part 3, supra. Thus, the only legally viable theory rests on Lorillard's allegedly negligent design of Newport cigarettes that were sold in breach of the implied warranty of merchantability.

The issue litigated in Philip Morris was whether the cigarette manufacturer defendants, including Lorillard, "ha[d] violated, and continue[d] to violate, the Racketeer Influenced and Corrupt Organizations Act ('RICO'), 18 U.S.C. §§ 1961-1968, by engaging in a lengthy, unlawful conspiracy to deceive the American public about the health effects of smoking and environmental tobacco smoke, the addictiveness of nicotine, the health benefits from low tar, 'light' cigarettes, and their manipulation of the design and composition of cigarettes in order to sustain nicotine addiction." Philip Morris, supra at 26-27. In short, the issue in Philip Morris was deception, not whether the defendants' cigarettes as designed were defective and unreasonably dangerous when compared to a reasonable alternative design, or whether the defendants were negligent in designing those cigarettes. Because the claim in Philip Morris was racketeering rather than product liability or negligence, "the issue sought to be precluded in the later action" is not "the same as that involved in the earlier action," Ramallo Bros. Printing, Inc. v. El Día, Inc., supra, and the application of offensive collateral estoppel is not appropriate.²⁷

²⁷ In addition, the judge did not address whether the findings she adopted were essential to the judgment in United

Considering these errors cumulatively, we conclude that the prudent course is to vacate the judgment on the c. 93A count and remand the case to the judge. We simply are not confident that the judge's errors regarding Lorillard's alleged breach of a voluntarily assumed duty and offensive collateral estoppel did not materially affect her ultimate finding that Lorillard is liable to Marie's estate under § 9 for committing an unfair or deceptive act or practice in trade or commerce in violation of § 2. Moreover, the ambiguity of the judge's negligence finding and the possibility that the judge found that Marie suffered injury from Lorillard's negligence after 1979 based on theories of negligence that would not support a causation finding strengthen our prudential conclusion.

On remand, the judge shall determine whether, based solely on the relevant evidence presented at trial, Lorillard violated G. L. c. 93A, § 2, and, if liability is found under § 9,²⁸ what

States v. Philip Morris USA, Inc., 449 F. Supp. 2d 1 (D.D.C. 2006), aff'd in part, rev'd in part, 566 F.3d 1095 (D.C. Cir. 2009), cert. denied sub nom. Lorillard Tobacco Co. v. United States, 130 S. Ct. 3502 (2010). Where the Federal judge's decision in that case was over 900 pages in length, we cannot assume that the adopted findings were essential. Because we conclude that the offensive use of collateral estoppel was inappropriate here because there was no identity of the issues, we need not decide whether the adopted findings were essential to the racketeering conspiracy judgment.

²⁸ We note that the plaintiff's claim under G. L. c. 93A, § 9, survives Marie's death under G. L. c. 228, § 1, because it is premised on a contractual claim (alleged breach of the implied warranty of merchantability) combined with a tort claim "that is substantively akin to the types of torts within the scope of G. L. c. 228, § 1" (negligence in design causing Marie's lung cancer and death). Klairmont v. Gainsboro Restaurant, Inc., ante

actual damages should be awarded to Marie's estate for injury suffered by her that was caused by the violation of § 2.²⁹ If the judge on remand finds a violation of § 2 supporting liability under § 9, the judge shall also determine whether the violation was wilful or knowing and, if so, whether actual damages should be doubled or trebled in accordance with G. L. c. 93A, § 9 (3).³⁰

Conclusion. We affirm the jury's finding of liability on

165, 179 (2013) (Klairmont). See Kraft Power Corp. v. Merrill, 464 Mass. 145, 150 (2013).

²⁹ Because statutory wrongful death damages under G. L. c. 229, § 2, do not apply to actions brought under G. L. c. 93A, the judge may award compensatory damages to the plaintiff only in his capacity as executor of Marie's estate for injuries suffered by Marie that were caused by Lorillard's actions in violation of c. 93A. See Klairmont, supra at 181. As in Klairmont, the plaintiff filed the instant action in his capacity as executor of his mother's estate and not in his individual capacity. Therefore, "[w]e do not address whether the plaintiff[] would have a claim under c. 93A if [he] had filed the claim[] as [an] individual[]." Id. at 180 n.20.

Further, because the judge has already determined in ordering remittitur that the compensatory award of \$25 million "for all of the harm Marie suffered . . . is appropriate, reasonable and just," we recognize that the judge is unlikely to award compensatory damages under G. L. c. 93A, § 9, in an amount greater than the amount awarded to Marie's estate by the jury as reduced by the order of remittitur. Unless the judge were to award a greater amount, the award of compensatory damages under G. L. c. 93A cannot affect the total amount owed to Marie's estate for compensatory damages, because damages may not be duplicative. See Canal Elec. Co. v. Westinghouse Elec. Corp., 406 Mass. 369, 379 n.10 (1990) ("plaintiff suing both for breach of warranty and under c. 93A would be entitled, if successful, to actual damages plus attorneys' fees, but not to double recovery plus fees").

³⁰ We note that "the representatives of a decedent's estate asserting a claim under c. 93A are entitled to seek, and if successful, recover, multiple damages under c. 93A, §§ 9 and 11." Klairmont, supra at 183 n.23.

the claim of wrongful death caused by breach of the implied warranty of merchantability, and affirm the award of compensatory damages, as reduced by the remittitur. We reverse the finding of liability on the claim of wrongful death based on the theory of voluntary undertaking of a duty, and order judgment for the defendant on this claim. We vacate the jury's findings as to the claim of wrongful death on the theory of negligence and their findings that Lorillard was grossly negligent and acted in a manner that was malicious, wilful, wanton, or reckless, and therefore vacate the jury's award of punitive damages. We remand the case for a new trial on the issue whether Lorillard is liable for any conduct that would give rise to punitive damages under G. L. c. 229, § 9, and if so, the amount of punitive damages that should be awarded. We vacate the judge's finding of liability on plaintiff's claim that Lorillard violated G. L. c. 93A and remand the case to the judge for further action consistent with this opinion.

So ordered.