

Product Liability Standards for the Duty to Warn:
When To Warn (And When Not To)

No one can forget the lawsuit of an elderly woman who sued McDonald's for failing to warn her that its coffee was hot. The woman suffered third degree burns when coffee spilled in her lap as she attempted to remove the lid of her coffee cup. A jury awarded the woman almost \$3 million dollars in compensatory and punitive damages; however, the award was reduced by the judge and the case later settled for an undisclosed amount prior to appeal.

This Article will look at the duty to warn of product dangers from both a legal perspective and an engineering perspective. First, this Article will review general product liability law in Indiana and the corresponding duty to warn. Second, this Article will discuss research concerning when warnings are and are not appropriate. Within such discussion, this Article will review the most common product liability defenses in failure to warn cases. The discussion will also address the legal requirements for the content of warnings. Next, this Article will analyze the factors that are considered when deciding whether a warning should or should not be provided. Finally, this Article concludes that the determination of whether or not a warning is appropriate should be based on rational criteria regarding a warning's potential utility.

Legal Standards for Product Liability Actions

In product liability actions, such as the McDonald's case, a plaintiff must prove that the product is in a defective condition which renders it unreasonably dangerous.¹² "The requirement that the product be in a defective condition focuses on the product itself while the requirement that the product be unreasonably dangerous focuses on the reasonable expectations of the consumer."³ A product may be defective because of a manufacturing flaw, a defective design or a failure to warn of dangers in the product's use.⁴

Whether a duty to warn exists therefore depends on whether the supplier or manufacturer knew or had reason to know that the product was likely to be dangerous when used in a foreseeable

¹ Section 34-20-2-1 of Indiana's Product Liability Act (the "Act") provides:

[A] person who sells, leases, or otherwise puts into the stream of commerce any product in a defective condition unreasonably dangerous to any user or consumer or to the user's or consumer's property is subject to liability for physical harm caused by that product to the user or consumer or to the user's or consumer's property if:

- (1) that user or consumer is in the class of persons that the seller should reasonably foresee as being subject to the harm caused by the defective condition;
- (2) the seller is engaged in the business of selling the product; and
- (3) the product is expected to and does reach the user or consumer without substantial alteration in the condition in which the product is sold by the person sought to be held liable under this article.

² Birch v. Midwest Garage Door Systems, 790 N.E.2d 504, 517 (Ind. Ct. App. 2003); Welch v. Scripto-Tokai Corp., 651 N.E.2d 810, 814 (Ind. Ct. App. 1995).

³ Birch, 790 N.E.2d at 517; Welch, 651 N.E.2d at 814.

⁴ Natural Gas Odorizing, Inc. v. Downs, 685 N.E.2d 155, 161 (Ind. Ct. App. 1997).

manner.⁵ The duty to warn actually consists of two duties: (1) the duty to provide adequate instructions for safe use, and (2) the duty to provide a warning as to dangers inherent in improper use.⁶ A manufacturer has a duty to warn with respect to latent dangers even if there is no defect in the product itself.⁷

Generally the duty to warn is non-delegable.⁸ As such, the manufacturer must warn the ultimate user of the product. However, under the "sophisticated user" exception, there is no duty to warn the ultimate user of the product when the product is sold to a "knowledgeable" or "sophisticated intermediary."⁹ To determine whether a manufacturer has satisfied its duty to warn by relying upon a sophisticated intermediary, courts look to the following factors: the likelihood or unlikelihood that harm will occur if the intermediary does not pass on the warning to the ultimate user; the trivial nature of the probable harm; the probability or improbability that the particular intermediary will not pass on the warning and the ease or burden of the giving of the warning by the manufacturer to the ultimate user.¹⁰

Since the duty to warn stems from the view that a product manufacturer should have superior knowledge of its product, the intermediary must have knowledge or sophistication equal to that of the manufacturer or supplier.¹¹ Further, the manufacturer must be able to reasonably rely on the intermediary to warn the ultimate consumer.¹² "Reliance is only reasonable if the intermediary knows or should know of the product's dangers."¹³ For example, an intermediary knows or should know of the product's dangers if the manufacturer or supplier has provided an adequate warning of the dangers or information concerning the product's dangers is in the public domain.¹⁴ Ultimately, whether a manufacturer or supplier's reliance was reasonable is a fact sensitive question that depends on the product's nature, the complexity and associated dangers, the likelihood that the intermediary will communicate warnings to the ultimate consumer, the dangers posed to the ultimate consumer by an inadequate or nonexistent warning, and the feasibility of requiring the manufacturer to directly warn the product's ultimate consumers.¹⁵

The most common allegation in a failure to warn case is that the lack of warning was somehow the proximate cause of an individual's decision to undertake some risky action that resulted in harm or injury. However, occasionally there are instances where a warning, while potentially appropriate, could actually produce negative consequences (i.e., an increased rather than decreased incidence of the warned against behavior). This leaves the product manufacturer in a quandary. The decision whether a warning should be included with or on a product is a complicated one, and no "one size fits all" answer is possible.

⁵ Hinkle v. Niehaus Lumber Co., 525 N.E.2d 1243, 1245 (Ind. 1988).

⁶ Downs, 685 N.E.2d at 161; McClain v. Chem-Lube Corp., 759 N.E.2d 1096, 1103 (Ind. App. 2001).

⁷ Downs, 685 N.E.2d at 161.

⁸ Downs, 685 N.E.2d at 163; Schooley v. Ingersoll Rand, Inc., 631 N.E.2d 932, 941 (Ind. Ct. App. 1994).

⁹ Downs, 685 N.E.2d at 163.

¹⁰ *Id.*

¹¹ *Id.*

¹² *Id.* at 164.

¹³ *Id.*

¹⁴ *Id.*

¹⁵ *Id.* In Downs, the intermediary admitted that it was aware of the danger. The court, however, found there was a question of fact as to whether the manufacturer reasonably relied on the intermediary to warn the ultimate user since the manufacturer failed to provide any warnings or insure that the intermediary would warn customers.

To Warn...

In truth, warnings, while necessary in many cases, are either unnecessary or inappropriate in others. Research has provided guidelines on when warnings are and are not appropriate to assist manufacturers and others in making the decision on whether they should be employed. There exists a hierarchy of risk reduction techniques that has been accepted by product designers for many years:

- a) Design dangerous features out of a product
- b) Protect against remaining hazards by warning or shielding
- c) Provide adequate warnings of residual hazards and instructions for proper use

In general, in order to promote maximum effectiveness, each hazard should be addressed at the highest level in the hierarchy possible. The most effective strategy for dealing with a hazard is, thus, to design it out of the final product if practical. If this is not practical, guarding (if appropriate) should be employed before warnings are even considered. Even if some level of residual risk still exists after the first two stages in the hierarchy, warnings are not necessarily always appropriate.

The primary purpose of warnings is to provide information regarding potential hazards to product users; an additional may be to remind them of the danger at a time and place at which the danger is most likely to be encountered.¹⁶ With most products, this is a more or less straightforward process involving determination of residual risk, likelihood of occurrence, the potential severity of resulting injuries, and other related factors. According to the American Society of Safety Engineers,¹⁷ warnings are desirable when the hazard is foreseeable and

- 1) The hazard is, by definition, dangerous;
- 2) The danger posed by the hazard is or should be known to the producer, manufacturer, supplier, or facility manager;
- 3) The danger is not one which is obvious, known, or readily discoverable by the user; and
- 4) The danger is not one which arises because the product or substance is put to some irrational use.

Product Liability Defenses

The foregoing criteria can be traced to Indiana's standard of liability. In every product liability action, there must be a dangerous product or there is no duty to warn.¹⁸ In fact, the product must

¹⁶ SANDERS, M.S. & MCCORMICK, E.J., HUMAN FACTORS IN ENGINEERING AND DESIGN (7th ed. 1993).

¹⁷ T.F. Bresnahan et al., *The Sign Maze: Approaches to the Development of Signs, Labels, Markings, and Instruction Manuals*, AMERICAN SOCIETY OF SAFETY ENGINEERS, 1993.

¹⁸ See *Black v. Henry Pratt Co.*, 778 F.2d 1278, 1283 (7th Cir. 1985); *American Optical Co. v. Weidenhamer*, 478 N.E.2d 181, 187 (Ind. 1983).

be unreasonably dangerous. Such a requirement accounts for products which may be dangerous in the colloquial sense but which are not unreasonably dangerous.¹⁹ Accordingly, Indiana courts have held that a weight machine was not unreasonably dangerous when it functioned properly as exercise equipment even though such machine could be dangerous when used by children.²⁰ Similarly, a lighter was held not to be unreasonably dangerous even though there was no dispute that the lighter was dangerous in the hands of a child since the lighter functioned in the manner expected by an ordinary consumer.²¹

The Open and Obvious Rule

A manufacturer or supplier must have known, or had reason to know, of the danger.²² However, if the danger is open and obvious to all, there is no duty to warn. The test for determining whether a danger is open and obvious is whether the defect is hidden and not normally observable, constituting a latent danger in the use of the product.²³ The test is objective and based on what the reasonable consumer would have known.²⁴ Although the open and obvious rule only applies to product liability claims based on negligence and not strict liability claims, the relative obviousness of a product's dangers is relevant in determining whether or not a product is defective and unreasonably dangerous.²⁵

Misuse

A manufacturer or supplier will not be liable, and therefore there is no duty to warn, if the danger arises because the product is misused. In *Barnard v. Saturn Corp.*, 790 N.E.2d 1023 (Ind. Ct. App. 2003), a widow brought a wrongful death product liability action against a car manufacturer and the manufacturer of the included car jack after the couple's vehicle fell on top of the husband as he attempted to change the car's oil while using the jack. On the jack itself was a warning that the jack should only be used for changing tires. Additionally, the vehicle owner's handbook repeatedly warned that a vehicle may slip off the jack and injure the user. The handbook further stated that a user should never get under a vehicle while it is supported only by a jack. The handbook even specifically cautioned against changing the oil while a vehicle is on a jack.

Despite these warnings, the decedent attempted to change his vehicle's oil while using the jack. The widow argued that the manufacturers should have foreseen her husband's misuse. The court acknowledged that misuse is a defense to product liability actions where the "cause of the physical harm is a misuse of the product by the claimant or any other person not reasonably expected by the seller at the time the seller sold or otherwise conveyed the product to another

¹⁹ *Baker v. Heye-America*, 799 N.E.2d 1135, 1140 (Ind. Ct. App. 2003).

²⁰ *Smith v. AMLI Realty Co.*, 614 N.E.2d 618, 622 (Ind. Ct. App. 1993). In finding that the weight machine was not unreasonably dangerous, the Smith court compared the weight machine to a loaded gun. The court reasoned that a gun that works properly may not be unreasonably dangerous; however, the same gun in the hands of a child is a dangerous instrument.

²¹ *Welch*, 651 N.E.2d at 814-815.

²² *Peters v. Judd Drugs, Inc.*, 602 N.E.2d 162, 164-165 (Ind. Ct. App. 1992).

²³ *Anderson v. P.A. Radocy & Sons, Inc.*, 67 F.3d 619, 621 (7th Cir. 1995).

²⁴ *Id.* at 622.

²⁵ *Miller v. Todd*, 551 N.E.2d 1139, 1143 (Ind. 1990); *Welch*, 651 N.E.2d at 815.

party.”²⁶ Misuse has also been defined as the “use for a purpose or in a manner not foreseeable by the manufacturer.”²⁷

The court reasoned that sellers have a right to assume that a warning will be read and heeded when one is given.²⁸ In this case, the decedent disregarded multiple warnings and instructions. While the court found that it was unlikely that the manufacturers could not have reasonably foreseen the decedent’s use, the court found that the decedent misused the jack when he deployed it in direct contravention of its reasonably expected permitted use.²⁹

Incurred Risk

Similar to the defense of misuse, the incurred risk defense also precludes an injured user from collecting damages. A plaintiff incurs a risk if the plaintiff (1) has actual knowledge of the specific risk and (2) understands and appreciates the risk.³⁰ In *Coffman*, a truck driver sued the manufacturer of the trailer he has hauling and the manufacturer of the tarp system attached to the trailer for failing to warn him of the dangers of operating the tarp near power lines.

The driver admitted that he had knowledge of the risk of injury from a trailer’s contact with power lines and detailed an earlier incident in which his trailer had struck a power line. The driver further admitted that he was aware of the power lines at the accident location because he had driven to such location before but “didn’t think about them.”

The court noted that tarp had a label warning regarding the dangers posed by overhead power lines and that the driver could not have avoided seeing the label since it was placed on the handle that operated the tarp system. The court concluded that the driver had understood the risk but disregarded all of the warnings that were provided. The court felt that no warning could have prevented the accident since the driver was not paying attention to what he was doing or where he was. Finding that the driver incurred the risk of his injuries and that his contributory negligence was more than the total negligence of the defendants, the court affirmed summary judgment in favor of the defendants.³¹

²⁶ Barnard., 790 N.E.2d at 1030 (citing I.C. § 34-20-6-4).

²⁷ *Id.*

²⁸ *Id.*

²⁹ *Id.* at 1031. The court’s observation in Barnard that it was likely that the manufacturer could have foreseen the decedent’s misuse raises the issue of whether a manufacturer has a duty to warn if a manufacturer knows that its product is being misused. I.C. § 34-20-6-4 provides:

It is a defense to an action under this article (or I.C. § 33-1-1.5 before its repeal) that a cause of the physical harm is a misuse of the product by the claimant or any other person not reasonably expected by the seller at the time the seller sold or otherwise conveyed the product to another party.

Courts have construed this language to find that a manufacturer does have a duty to warn against the consequences of misuse if the manufacturer knows that its product is being misused. See *Leon v. Caterpillar Industrial Inc.*, 69 F.3d 1326, 1343 (7th Cir. 1995).

³⁰ *Coffman v. PSI Energy, Inc.*, 815 N.E.2d 522, 527-528 (Ind. Ct. App. 2004).

³¹ *Id.* at 529.

Based on the four criteria listed above and the defenses available in product liability actions, the following warnings may not be necessary:

A warning on an electric router made for carpenters cautions: *“This product not intended for use as a dental drill.”*

A warning label found on a baby stroller warns the user to *“Remove child before folding.”*

A cartridge for a laser printer alerts the buyer, *“Do not eat toner.”*

A household iron provides the sage advice to: *“Never iron clothes while they are being worn.”*

A cardboard car sunshield that keeps sun off the dashboard says, *“Do not drive with sunshield in place.”*

A can of self-defense pepper spray surprises us by letting us know that it: *“May irritate eyes.”*

A warning on a pair of shin guards manufactured for bicyclists enlightens us that: *“Shin pads cannot protect any part of the body they do not cover.”*

Content of Warning

When a warning is required, the product label must make apparent the potential harmful consequences.³² “The warning should be of such intensity as to cause a reasonable man to exercise for his own safety caution commensurate with the potential danger.”³³ In reviewing the adequacy of a warning, a court will therefore look at the factual content, the manner in which the content is expressed and the adequacy of the method of conveying the warning.³⁴ Generally, the adequacy of warnings is a question of fact reserved for the jury.³⁵ A warning is adequate if it reasonable under the circumstances.³⁶

...Or Not to Warn?

³² Jarrell v. Monsanto Co., 528 N.E.2d 1158, 1162 (Ind. Ct. App. 1988).

³³ *Id.* at 1162.

³⁴ McClain, 759 N.E.2d at 1104; Jarrell, 528 N.E.2d at 1163.

³⁵ McClain, 759 N.E.2d at 1104; Jarrell, 528 N.E.2d at 1163. In Jarrell, for example, the court found that there was an issue of fact as to whether a label on a sulphur bag which read “WARNING!” “SULPHUR DUST SUSPENDED IN AIR IGNITES EASILY!” and “Avoid creating dust while handling” was sufficient to convey to a reasonable user the nature of the danger. Whether a warning is adequate is not always a question of fact however. In York v. Union Carbide Corp., 586 N.E.2d 861, 871 (Ind. Ct. App. 1992), the court found that the defendant adequately warned a steel company of the dangers of argon gas when the defendant supplied the company with a safety booklet more than 100 times and provided the company with safety data sheets as required by OSHA.

³⁶ For example, the court in Ziliak v. AstraZeneca LP, 324 F.3d 518, 521 (7th Cir. 2003) found that the warning on an asthma inhaler was adequate because it warned doctors that specific adverse side effects were associated with the use of the inhaler.

There are occasions where the presence of a warning may actually raise the likelihood of the proscribed behavior rather than deterring it. There is considerable research supporting this effect. Warnings do not necessarily positively influence risk-taking behavior; they have no prohibitive value of their own (they cannot prevent an action from being taken). In a study of risk-taking behavior by middle and high school students conducted by Goldhaber and de Turck regarding behavior in the presence of warning signs, there was a significant interaction between age and gender.³⁷ The presence of the warning signs had no effect on middle school students; the occurrence of risky behavior in the presence of warning signs actually caused an increase in risk taking behavior among males, though females showed a decrease in risk-taking behavior. Other studies have shown the same type of “boomerang” effect on young people in studies dealing with warnings on alcohol and anti-drug messages.³⁸ Research on the effectiveness of on-product warning labels was reviewed by McCarthy et al., who found no impact on behavior or accidents.³⁹ Other studies have demonstrated at least some impact on behavior in laboratory settings, but no actual reduction in accidents or injuries.⁴⁰ If a warning can be expected to produce little or no positive impact, but could potentially result in a negative impact, is it fair to fault manufacturers for reaching a decision not to include warnings on their products?

One example of this type of situation involves the incorporation of warnings regarding inhalant abuse, particularly on aerosol products. Inhalant abuse in the United States has been on the rise for a number of years, with an estimated 20% of all middle and high school students having at least experimented with it.⁴¹ Much of this type of activity involves the inhaling of gasoline, paint or adhesive product fumes, but a sizeable amount involves the inhalation of aerosol propellants. There does not appear to be a workable design alternative for any of these products (i.e., redesign is not possible). Guarding is unfeasible due to the nature of the products (i.e., there are no mechanical hazards against which guards would be effective). Normally, the next resort would be to incorporate warnings regarding the potential hazard, but, in the examples provided, such an action would potentially raise new risks and dangers (namely, the ready identification of products that would be appropriate for such misuse). There is, thus, a conflict between the good design practice of incorporating on-product warnings about known hazards and the equally important good design practice that mandates that the elimination of a potential hazard should not result in the creation of different and potentially more dangerous ones. It is quite possible in such cases for on-product warnings to do more harm than good. Such a conflict places the product manufacturer in a position where he is damned no matter which alternative he selects.

³⁷ G.M. Goldhaber & M.A. de Turck, *A Development Analysis of Warnings Signs: The Case of Familiarity and Gender*, in, PROCEEDINGS OF THE HUMAN FACTORS SOCIETY 33RD ANNUAL MEETING.

³⁸ L.B. Snyder & D.J. Blood, *Alcohol Advertising and the Surgeon General’s Alcohol Warnings May Have Adverse Effect on Young Adults*, Paper presented at the International Communication Association Annual Conference (May 1991); P.C. Feingold & M.L. Knapp, *Anti-drug Abuse Commercials*, 27 JOURNAL OF COMMUNICATION 20-28 (1977).

³⁹ R.L. McCarthy et al., *Product Information Presentation, User Behavior, and Safety*, in, PROCEEDINGS OF THE HUMAN FACTORS SOCIETY 33RD ANNUAL MEETING at 81-85.

⁴⁰ S.S. Godfrey et al., *Warnings: Do They Make a Difference?*, in, PROCEEDINGS OF THE HUMAN FACTORS SOCIETY 29TH ANNUAL MEETING.

⁴¹ C.E. Anderson & G.A. Loomis, *Recognition and Prevention of Inhalant Abuse*, AMERICAN FAMILY PHYSICIAN, 2003, at 869-874.

How to Decide?

Many jurisdictions take the standpoint that product users will actively seek out information and will comply with warnings if they are provided. Such a view is optimistic at best. Cost is one of the most important factors in predicting potential warning compliance and “...*virtually any type of discomfort, restriction of movement or freedom, or other encumbrance can serve as a barrier to compliance. The simple fact that behaving unsafely is sometimes more pleasurable or rewarding than behaving safely also qualifies as a cost of compliance*”⁴² This effect has been demonstrated in a number of studies, such as those conducted by Wolgalter and Dingus et al.⁴³ In all of these studies, relatively small increments in “cost” produced large decrements in compliance with warnings. The gist of this is that if there exists a “cost” to complying with a warning and that cost is perceived as being insufficient to outweigh the benefit of noncompliance, the warning is unlikely to be complied with.

The court in *Traylor v. Husqvarna Motor*, 988 F.2d 729, 735 (7th Cir. 1993), recognized this phenomenon when it stated:

But Americans are not Prussians--they are not schooled to obedience as the prime virtue of the good citizen--so they are constantly putting things to new uses. If they have no reason to think the new use unreasonably dangerous, and therefore reasonably believe that the benefit of the deviant use exceeds its cost, their culpability in disobeying the instructions is slight. If the producer can protect the user at lower cost by a simple warning, this may be the cheapest method for the prevention of accidents. Although a maul is intended for splitting logs rather than for pounding other mauls, it is the most natural thing in the world, if you find yourself with one maul stuck in a log, to whack it with another maul in an effort to make the first complete the splitting of the log in which it is stuck, and thus get free. If there are hidden dangers in such a procedure, optimal accident avoidance may require the producer of the maul to warn of these dangers.

Ayres et al listed several criteria for determining when a warning “might” change behavior (see Table 1 below).⁴⁴

⁴² M.S. WOLGALTER ET AL., WARNINGS AND RISK COMMUNICATION (Taylor & Francis, Inc. 1999).

⁴³ M.S. Wolgalter et al., *Effectiveness of Warnings*, 29 HUMAN FACTORS 599-622 (1987); M.S. Wolgalter et al., *Effects of Cost and Social Influence on Warning Compliance*, 31 HUMAN FACTORS 133-140 (1989); T.A. Dingus et al., *Warning Variables Affecting Personal Protective Equipment Use*, 16 SAFETY SCIENCE 655-673 (1993).

⁴⁴ T.J. Ayres, *What is a Warning and When Will it Work?*, in, HUMAN FACTORS PERSPECTIVES ON WARNINGS (1994).

A Warning (Sign or Label) Might Change Behavior If A Person:	
1. Reads and understands the warning, and The Person:	2. Is motivated and able to change behavior The Person
Is alert and sober, and Is seeking information, and --Feels need for information, based on past experience --Hazards suspected, but not observable Doesn't filter out the warning --Not overloaded with information --Not previously exposed to excessive, unnecessary warnings	Would not know there was a hazard without the warning and Believes the warning, and ---Warning information is consistent with past experience ---Conduct of others is consistent with warning ---Source is credible Does not accept the risk, and ---Consequences are seen as highly likely (or severe and moderately likely) ---Does not believe hazard is under his/her control ---Risk outweighs the attraction of the activity ---Risk outweighs the social pressure to take risk ---Risk outweighs the cost/effort of avoidance
The Sign or Label: Is present (only) when and where needed, and Includes (only) the information needed, and Is in an appropriate format --Noticeable, at person's level of information seeking --Brief, legible and understandable	Is capable of making an appropriate change, and Remembers to change

Table 1

Some explanation for the rationale behind these guidelines may be appropriate. For a warning to be actively attended to, the viewer must be in an information-seeking mode, primarily because they either suspect unknown hazards or because their experience suggests that a hazard may exist. The greater the level of knowledge possessed regarding the product by the user, the less likely warnings will be sought out.⁴⁵ The level of such knowledge is subjectively determined by the user him- or herself and may not reflect the true absolute level (anyone who has ever dealt with a teenaged driver is well-acquainted with this phenomena!) To use a prosaic example, most of us have rented an automobile at one time or another in the course of our travels. Few if any of us, however, take the time to read the owner's manual of the rented vehicle from cover to cover before turning the key. The same is often true with the vehicles we purchase for our own use. We may skim through the manual, or use it to look up specific information, but we rarely read it in its entirety. We judge that our current level of knowledge regarding the safe operation of an automobile is sufficient for us to perform the task of operating a less familiar one without incurring any undue additional risk. Studies have shown that the greater the familiarity with a product a user has or the greater the degree of similarity between a new product and one with which the user is familiar, the less likely the user is to read the accompanying warnings and instructions.

⁴⁵ D. Dejoy, *Attitudes and Beliefs, in*, WARNINGS AND RISK COMMUNICATION 189-219 (M.S. Wolgalter et al. eds., Taylor & Francis 1999)

The same is true of the perceived complexity of a product. A common ladder, sold in hardware stores across the country, is festooned with stickers giving detailed information regarding the product's proper use. The product's basic method of use is, however, clear to the casual observer. The likelihood of the warnings and instructions being ignored by the purchaser are thus likely to be high. Unfortunately, judging by the number of cases alleging lack of adequate warnings on such products, few users are aware of the distance which the base of a ladder should be placed from a vertical surface (a 1:4 ratio) or that one should not ascend beyond a certain height when ascending the ladder (information which is almost always presented on the aforementioned stickers).

Another potential problem stems from the number of warnings that are provided with the product and their perceived utility ("warning dilution"). If too many warnings are provided to the user, a saturation level is hypothesized to be reached and the user stops attending to them. This is particularly true if the nature of the warnings provided are such that the information is perceived by the user as either obvious or dealing with irrational actions (e.g., the warnings, "*May cause drowsiness*" on sleeping pills, "*Do not use the Ultradisc2000 as a projectile in a catapult*" on a CD-player [both actual on-product warnings].) If such warnings are placed on products and are among the first attended to by the user, the potential exists for the reader to reach the reasonable conclusion that all of the remaining warnings deal with similarly obvious or irrational issues. Since product users more often than not perceive themselves to be both knowledgeable and rational, they may see no need to read further. The likelihood of additional reasonable warnings being attended to is thus at least diminished.

Finally, warnings are affected by the social context in which they are viewed, something over which the manufacturer has no control. If appropriate warnings are conspicuously placed on products, yet others in the workplace routinely ignore them without penalty, the likelihood of them being attended to by either new or experienced users is reduced. Most products currently available in the marketplace are at least relatively safe and accidents are infrequent. The same accidents do not happen in the same place on a daily basis. Perception of risk is a subjective phenomenon which is normally based on both the perceived likelihood of negative consequences and the severity of the consequences. If the likelihood of occurrence of a negative event is perceived as being low or its consequences are perceived as being minimal and the potential payoff is perceived as being desirable, then the warned against activity is likely to occur regardless of the presence or absence of a warning.

Conclusion

Lack of adequate warnings is a common allegation in product liability cases. There are many instances where warnings are important to prevent well-intentioned but improper use of a product or to alert users to reasonable hazards of which they may be genuinely unaware. Warnings, however, are neither a universal remedy nor always appropriate. It is unreasonable to expect product producers and suppliers to anticipate every possible irrational manner in which their product may be misused or to attempt to provide users with warnings regarding the potential consequences of such misuse. There are instances where providing a warning may increase, rather than decrease, unsafe use of a product and the philosophy that "more is better" does not necessarily hold true. The determination of whether or not a warning is appropriate

should be based on rational criteria regarding its potential utility, not as part of a bunker mentality to prevent future litigation.