

18. The Bicycle's Role in the Development of Safety Law

On Wednesday, a gentleman, who stated he came from Thornhill in Dunfries, was placed at the Gorbels public bar, charged with riding along the pavement on a velocipede to the obstruction of the passage, and with having, by so doing, thrown over a child... The child who was thrown down had not sustained any injury, and under the circumstances, the offender was only fined 5 shillings. *Glasgow Argus*, June 9, 1842—arguably the first application of safety law to the bicycle.¹

Introduction

There is a longstanding debate between those who believe tort law developed in the 19th century as a means to compensate people for the injuries caused by industrialization² and those who believe negligence and other liability-limiting doctrines evolved instead of strict liability as a way of subsidizing industrial development at the expense of those injured.³ This debate may be extended to the 20th century where the issue is whether tort liability has become overcompensatory having a negative effect on industrial innovation.⁴ The 20th century debate includes an important new dimension, not considered by those discussing 19th century tort law, the policy implications of safety regulation.⁵

While these works all contribute to our understanding of how the legal system has responded to new technology, they are limited by their exclusive focus on tort law. This article, by examining the legal response to a single technological innovation, the bicycle, demonstrates the advantages of a broader approach. The important question is not how the courts reacted to industrialization, but how the legal system as a whole responded. Although there is no a priori reason to assume the courts and legislative bodies would react differently to technology, it is possible that one was trying to counterbalance the policies of the other. As a small step toward answering that question, this paper will study the bicycle's effect on

safety law as established both by the common law and regulatory law.⁶

Furthermore, some judicial considerations of technology fall outside the tort or regulatory safety area. In the 19th century, an important question concerning bicycles was whether that new form of transportation would be given access to the road. Without legal access, cyclists would be trespassers and not entitled to legal recourse if they were injured by other roadway users or defects in the road.

This issue is important not only for safety considerations, but also as another piece of evidence concerning the legal system's treatment of new technology. In the twentieth century, the courts faced this issue again with yet another technological innovation, the automobile. But by that time, the legal principle was well established in bicycle cases that all vehicles, not otherwise banned, were entitled to equal rights in using the roads.

In order to examine the role of the bicycle in the development of safety law, this article first proposes a broad definition of safety law to include not only tort law, but also regulation of safety issues by legislatures and regulatory agencies. The bicycle stimulated a number of regulatory enactments dealing with safety.

This article will discuss all of these enactments, but highlight those of the late 19th century as the more significant toward the overall development of

Synopsis

This paper proposes an innovative framework for broadly defining safety law. It then examines the innovations in safety law caused by the bicycle. The bicycle first established the principles of roadway access and fitness for new vehicles as well as equal rights for all vehicles. It also was responsible for the development of roadway hazard warning signs. The bicycle can claim credit for behavioral laws requiring signaling to other vehicle operators and the remedy of using public service announcements to correct unsafe product usage depicted in advertising. Finally, the bicycle may be the first consumer durable product to endure governmentally imposed safety standards about its design and required safety features.

safety law. This article also describes the treatment of the bicycle by the courts in safety law issues.

A Definitional Framework of Safety Law

Traditional notions of safety law center around the torts of negligence and strict liability for defectively designed products⁷ as well as regulatory approaches such as product safety standards and the recall of unsafe or defective products.⁸ Implicit in these approaches is the assumption that safety problems are primarily caused by a problem with the product that can be corrected. Yet this is predominantly not the case.

For most products, it is human behavior that is the primary cause of injury, not the product itself. For example, the CPSC's (Consumer Product Safety Committee) annual collection of injury data from hospital emergency rooms identifies the following as the products with the highest number of injuries: stairs, bicycles, baseballs, footballs, basketballs, nails, chairs, sofas, tables, and glass.⁹ It seems obvious that most of these products are not particularly dangerous. Rather, people are injured playing sports or tripping over stairs or furniture.

For the products subject to CPSC standards, estimates range from 15%–25% for the proportion of injuries cured by regulation.¹⁰ These estimates are likely biased in favor of product-oriented regulation.¹¹ Yet even these biased estimates suggest the important role of human behavior in product safety. Thus, for many products, even inherently dangerous ones, improving the behavior of product users may improve product-related safety.

Conceptual frameworks for considering how product safety may be improved have been developed by both economists and public health specialists. The economic model is straightforward. Steven Shavell suggests that alternative regulatory approaches vary by timing and origin. He proposes a simple two-by-two matrix containing examples:¹²

Table 1

	Ex Ante	Ex Post
Government Action	Safety standards	mandatory compensation
Private Action	injunction	liability lawsuits

While this approach is a useful beginning, it was intended to focus on the differences between regulatory action (by either legislatures or specialized safety

agencies) and private litigation by injured parties, rather than fully explore the various approaches of product safety law. It ignores the importance of human behavior in product safety law.

Although Shavell presents alternatives in a full two-by-two matrix, government regulation tends to prefer the ex ante approach of safety standards and product recalls. Mandatory compensation has only been widely adopted for worker's compensation. Furthermore, while a private lawsuit seeking to enjoin an unsafe product is possible, it is rare. Private lawsuits typically seek compensation, in part to compensate the attorneys presenting the suit. While Shavell's approach is useful because it distinguishes private lawsuits from regulatory action, it must be modified to more fully describe product safety law.

The public health literature provides a fuller analysis. Public health specialist William Haddon has developed a three-by-three matrix examining timing and causal factors to conceptualize approaches for improving safety.¹³ Haddon's area of expertise was traffic safety, so his conceptualization includes several approaches not often recognized as product safety regulation such as regulation of who can use the product (e.g., driver's licenses) and laws governing product use behavior (e.g., traffic law).

The "Haddon" matrix presented below contains examples from legal and regulatory approaches even though some latter matrices divide the environment into the physical and socioeconomic environments and include all law and regulation under the latter category.¹⁴

Table 2

	Pre-event	Event	Post-event
Human factors	safety standards traffic laws	negligence	no-fault insurance
Product factors	reg. approval safety standards		recalls
Environm. factors	traffic signs road design		road shoulders emergency services

While Haddon's approach may serve the public health community well by helping it conceptualize counter-measures to particular injury problems, it does not fully describe the legal system. Haddon's distinction between the "pre-event" and "event" time periods is of limited use in legal analysis. Safety

standards and product design suits, for example, often address design characteristics for both time periods. The event timeframe is very small—it is the duration of the actual collision or injuring event. It would include the legal issue of whether a car has a “crash-worthy” design, but would probably exclude the tort doctrine of “last clear chance” since that deals with the duty to avoid the accident or event.

Neither of these approaches accurately captures product safety law. However, they can be combined into a useful matrix:

Table 3

	Regulation (ex ante)	Litigation (ex post)
Environment	road design, traffic signs, signals, anti-obstruction laws	negligent design or maintenance
User	operator licensing rules of the road	compensation lawsuits
Product	safety standards product recall	negligent manufacture defective design

This matrix maintains Shavell's distinction between the two types of legal action: regulation, which imposes a duty in order to prevent future injuries (e.g., speed limits), and litigation, which seeks to compensate someone who has been injured by conduct that is only after the fact determined to constitute breach of duty (e.g., negligent or reckless operation of a vehicle). It then applies these types of action not only to the product itself (the traditional view), but also to the user and the environment in which the product is used.

While for most products, the environment in which they are used is ignored, for the bicycle, and its descendant the automobile, the environment can have an important impact on safety. If roads are not well designed and maintained or do not contain useful road signs and traffic signals, safety decreases. Not surprisingly, both case law and statutes held municipalities liable for defective roadways.

Similarly, the behavior of the product operator can significantly affect safety of both the operator and third parties. For this reason, rules of proper product use have developed; those rules are particularly detailed for roadway vehicles.

While this matrix provides a useful categorization of safety law, some efforts may cut across categories. For example, mandatory product warnings

could be considered either product-related (since they appear on the product), environment-related (they do not change the product itself) or user-related (they tell the user how to safely use the product). Since they are intended to influence user behavior, this latter categorization appears most accurate.

The usefulness of this matrix does not depend on every legal action being unambiguously categorized. Rather this matrix is useful if it is merely more fully descriptive of safety law than past approaches.

The remainder of this article uses the categories of this matrix to describe the bicycle's role in the historical development of safety law. It first describes environmental actions, including the important issue of roadway access, followed by operator rules, and finally product-related actions. As will be shown in this article, the bicycle is responsible for a number of innovations in safety regulatory law, but fewer in safety common law. A separate section will suggest possible reasons for this disparity.

Access to the Roadway Environment

As a user of a new mode of transportation, it was important for the bicyclist to gain the legal right to operate his machine on the streets. Otherwise, by riding the bicycle on the road, the cyclist would be committing an illegal act and held liable for any injuries caused, regardless of intent or negligence.¹⁵ The bicycle would be considered a public nuisance and held strictly liable for all harm, such as frightening horses.¹⁶ Furthermore, the bicyclist would be considered a trespasser and the city or owner of the roadway would have no legal obligation to maintain its safety for bicycle use. The bicyclist would assume the risk of whatever hazards he or she might meet while trespassing.¹⁷

The earliest efforts to exclude bicyclists from the roadways appear to be regulatory. Dunham reports that during the “boneshaker” craze of 1869, New York City banned the use of “velocipedes” in Central Park and Philadelphia prohibited sidewalk use as did many other municipalities.¹⁸ But the “boneshaker” fad lasted less than one year in America, and the courts did not review bicycle bans until ten years later when they were enforced against “ordinary” (high-wheeler) bicycles then gaining popularity.¹⁹

Perhaps the most famous attempt was by the Board of Park Commissioners of New York to again exclude bicycles from Central Park. A New York court upheld the Board's ordinance as a valid exercise of its authority.²⁰ The following year, Kentucky, in deference to the beloved horse, banned bicycles from most major

roads. There were too few bicyclists in Kentucky to challenge the ban. During the next several years many municipalities banned bicycles.²¹

In 1887, the Supreme Court of North Carolina upheld the validity of an 1885 state statute prohibiting bicycle use on a privately operated turnpike without express permission from the superintendent of the road.²² The court refused to hold that the legislature had unlimited power to ban bicycle use; rather it found the statute to be a proper exercise of state police power because it merely regulated bicycle use on a particular road at a particular time. Furthermore, the use of the bicycle, because it frightened horses, interfered with the ability of others to use the road.

The Maryland Supreme Court cited these two authorities in upholding the validity of an 1890 rule prohibiting bicycles on a wooden bridge over the Chester River.²³ The court stated:

We do not suppose that it could be seriously disputed that it is competent to the Legislature in the exercise of its police power and general right to regulate the use of the highways of the state, to restrict, and even forbid, the use of such vehicles as bicycles or tricycles on the highways, if they in fact be dangerous to the general travelling public.²⁴

The court followed the well-accepted concept that it should defer to the legislature unless the legislative enactment was clearly problematic. In this case, the court deferred to the legislative judgment that horses, even in 1893, became frightened of bicycles. The court refused to accept contrary evidence that prior to the rule bicycles had been allowed on the bridge without mishap.

In this decision, the Maryland Supreme Court was forced to acknowledge that a number of cases allowed bicycles to use the road, at least in the absence of any prohibition. These cases tended to rely on statutory interpretation for rules governing "carriages." The earliest decision of this sort was from Great Britain. In 1879, a British court decided that a bicyclist should be held liable under a statute that prohibited the driving of any sort of carriage "furiously, so as to endanger the life or limb of any passenger."²⁵ It is ironic that this decision against the bicyclist (who was held liable for speeding) should provide the basis for allowing bicyclists and eventually automobiles, equal use of the roadways.

While bicycling journals began noting favorable court decisions from 1883-1885,²⁶ the earliest U.S appellate case was decided in 1888 and concerned a wagon driver who refused to turn to the right when approaching a bicyclist, causing a collision.²⁷ A

Rhode Island statute required "every person traveling with any carriage or other vehicle who shall meet any other person so traveling" to drive to the right of the center of the road to allow the two vehicles to pass one another. In a brief decision, the Supreme Court of Rhode Island held that the bicycle was a vehicle and remanded the case to the lower court to determine the punishment of the wagon driver.

This ruling, that other vehicle operators must treat bicyclists as equals and bear to the right when one approached as required when other types of vehicles approached, soon became widely adopted.²⁸ In one case adopting this ruling, the Supreme Court of Minnesota noted:

A bicycle is a vehicle used now very extensively for convenience, recreation, pleasure, and business, and the riding of one upon the public highway in the ordinary manner as is now done is neither unlawful nor prohibited, and they cannot be banished because they were not ancient vehicles, and used in the garden by Adam and Eve.²⁹

The next year, the Indiana Supreme Court decided two important bicycle cases. Both held that the bicycle was a vehicle; the first case held it had an equal right to use the road at common law and was not a public nuisance,³⁰ and the second held bicycles were not allowed to use the sidewalk.³¹

Perhaps the high point in judicial deference to the rights of the bicycle and bicyclists was the 1890 decision in *Swift v. City of Topeka*, where the Supreme Court of Kansas interpreted a city ordinance that prohibited bicycle riding "upon any sidewalk in the City of Topeka, or across the Kansas River Bridge" to only prohibit bicycling on the sidewalk part of the bridge. To interpret the ordinance to exclude bicycles from the roadway section of the bridge would, according to the court, make the ordinance void "as against the common right."³² The court stated:

Each citizen has the absolute right to choose for himself the mode of conveyance he desires, whether it be by wagon or carriage, by horse, motor or electric car, or by bicycle.... This right of the people to the use of the public streets of a city is so well established and universally recognized in this country that it has become a part of the alphabet of fundamental rights of any citizen.³³

This decision certainly contrasts with the earlier Maryland decision broadly deferring to a legislative restriction of bicycles. The bicyclist was now recognized as a roadway user equal in status to other users. This

right would soon be inherited by motorists and not long after that other roadway users would have to fight to maintain their right to access.³⁴

While the courts appear to have led the way in welcoming the bicycle to the streets, regulatory authorities, despite their original hostility, were soon persuaded to enact statutes granting bicycles the right to use the road. For example, after cyclists in New York lost their litigative efforts to overturn the Central Park bike ban, they turned to the legislature. The resulting 1887 statute broadly protected the rights of bicyclists by eliminating local power:

... to pass, enforce or maintain any ordinance, rule or regulation, by which any person using a bicycle or tricycle shall be excluded from the free use of any highway, public street, avenue, road-way, drive-way, park-way or place at any time when the same is open to the free use of persons having and using other pleasure carriages.³⁵

Other states enacted statutes simply giving bicyclists the same rights and duties as other roadway users.³⁶ According to historian Robert Smith, "[u]ltimately, most sizable towns passed ordinances governing the use of roads and sidewalks by both carriages and bicycles and so paved the way for the elaborate codes controlling the use of automobiles in the present century."³⁷

Other legislative enactments intended to enhance the ability of bicyclists to use the roads include the so-called anti-hazard and wide-wheel laws. Apparently, it was a fairly common practice in the mid-1890s, whether by pranksters or tire repair shops, to harass bicyclists by laying broken glass or leather straps with tacks in the road to puncture pneumatic tires.³⁸ Many jurisdictions passed laws to deal with this practice. For example, a Michigan statute made it illegal and imposed fines on those who maliciously attempted to obstruct cycling.³⁹ Furthermore, narrow-wheeled horse-drawn vehicles created ruts dangerous to cyclists, so Rhode Island, Vermont, and other states beginning in 1898, passed laws requiring wide wheels.⁴⁰

Of course limited restrictions on access are allowed. Bicycles may be prohibited from using city sidewalks.⁴¹ They are not automatically disallowed from using sidewalks under the common law.⁴² However, some cases have held that bicyclists riding on sidewalks are negligent per se for injuring pedestrians.⁴³ Furthermore, Smith reports that Newark, New Jersey allowed bicycles on sidewalks, but an injured pedestrian sued and the court held the city liable for

damages, holding that it was illegal to allow vehicles to use the walk.⁴⁴

This result appears contrary to a New York case where the city permitted the use of sidewalks by bicyclists who paid a license fee, and the court held that the injured pedestrian must affirmatively prove the city's negligence—merely allowing bicycles to use sidewalks was not a "public nuisance" and therefore automatically negligence.⁴⁵ Other cases have simply shifted the burden of proof to cyclists riding on a sidewalk to prove they were not negligent in striking a pedestrian.⁴⁶

Of course, many municipalities passed ordinances restricting the right of cyclists to use sidewalks. Such restrictions on sidewalk use by bicyclists have been uniformly upheld.⁴⁷ However, cities are not liable for failing to enact restrictions on bicycle use upon sidewalks.⁴⁸ In fact, as noted above, some municipalities specifically allowed bicyclists to use the sidewalk. In 1901, the Michigan Supreme Court stated:

The bicycle has become almost a necessity for the use of workmen, clerks, and others in going to and from their places of work. Where the streets are unpaved, they are often times impassable for the bicycle, and it is entirely proper for municipalities to permit and regulate the use of sidewalks in such cases.⁴⁹

Enforcement of bicycle sidewalk prohibitions developed the predecessor to the modern day speed trap. Police would reportedly wait by impassable places in the road (and allegedly even create obstructions) to catch bicyclists who temporarily took to the sidewalk.⁵⁰ The fact that the road was impassable did not excuse riding on the sidewalk. Rather, the cyclist was expected to dismount and walk his bicycle past the obstruction.⁵¹

Turnabout was fair play, so bicyclists began lobbying for laws to prohibit others from using bikepaths. The first dedicated bicycle path was built in Brooklyn in 1895 and proved to be quite popular.⁵² According to historian Norman Dunham, New York, Massachusetts, and Michigan all considered such laws, and paths in Amsterdam, NY warned of a fifty-dollar penalty for use by non-cyclists.⁵³ The courts upheld these restrictions on bikepath use.⁵⁴

Access battles continued well into the 20th century for bicyclists. According to first-person accounts of John Forester, prior to 1944 the Uniform Vehicle Code (a model statute drafted by experts for states to use in creating their own laws) treated bicyclists as drivers of vehicles. In 1944, the code was changed to prohibit bicyclists from controlled access, high speed

highways and require them to use bikepaths when available or the right margin of the roadway in other cases.⁵⁵

The requirement to use bikepaths has since been changed and the mandatory side of the road rule has been modified to include exceptions such as turning left.⁵⁶ Thus, the battle for bicycle access to the roads and bridges continues to modern times.

Environmental Approaches

Once bicyclists obtained the right to use the roadways, they then had to battle to get municipal governments to design and maintain the roads in a condition safe for bike riding. The legal right to use the roads would mean little, if the roads could lawfully be maintained in a condition that was unsafe for bicycle use. The courts initially were a bit more reluctant to decide in favor of bicyclist rights, perhaps because it would cost the cities and towns money in terms of liability awards and increased maintenance costs. The use of hazard warning signs helped to ease this burden somewhat.

The first courts to consider the question were reluctant to hold a municipality negligent and therefore financially liable for failing to keep roadways safe for bicycle travel. For example, the Massachusetts Supreme Judicial Court, while recognizing many other decisions holding the bicycle to be a carriage, held that it was not a carriage under a 1786 statute that required towns to keep roadways reasonably safe "for travelers with their horses, teams, and carriages."⁵⁷ The court reasoned that other statutes authorized the construction of bicycle paths and forbade trespassing upon them because ordinary roads were not suitable for bicycle travel.⁵⁸ The court noted:

A bicycle is of but little use in wet weather or on frozen ground. Its great value consists in the pneumatic tire, but this is easily punctured, and no one who uses a wheel thinks of taking a ride of any distance without having his kit of tools with him... It would impose an intolerable burden upon towns to hold them bound to keep their roads in such a state of repair and smoothness that a bicycle could go over them with assured safety.⁵⁹

Other cases followed this reasoning in holding that a bicyclist could not recover for injuries caused by a defect in the road, if the road was reasonably safe for ordinary travellers. In other words, for liability purposes, the bicyclist was not an ordinary traveller, even though he or she was legally entitled to use the road.⁶⁰ Consistent with this holding, some courts

awarded damages to cyclists who were injured by a roadway defect that rendered the road unsuitable for ordinary, non-bicycle travel.⁶¹

Eventually, the courts noticed the inconsistency between allowing bicyclists to use the road and not requiring that the roads be kept safe for their use. Ordinary travel began to include the bicycle as well as other forms of travel.⁶² The Michigan Supreme Court directly disagreed with its Massachusetts counterpart (particularly on bicycle use on frozen ground):

Some authorities apparently assume that to make the highways or streets reasonably safe for bicyclists using reasonable care would impose more onerous duties upon the municipalities than to keep them in repair for pedestrians and horse-drawn vehicles. We do not think that this conclusion, under all conditions and circumstances necessarily follows.... A bicycle, by its compactness and readiness of control, renders its rider often more favorably situated than the drivers of loaded wagons, or even of light carriages, to avoid dangerous places or collisions with other vehicles. An asphalt pavement, even when level, is practically impassable for a horse ordinarily shod when the pavement is covered with a slight coating of ice or sleet, and yet a cyclist, on account of his rubber-tired vehicle, can pass over it readily.⁶³

For bicycle use on sidewalks, the law took a slightly different direction. Even though the law generally allowed bicyclists to use sidewalks (unless statutorily prohibited), most jurisdictions never required the municipality to keep sidewalks reasonably safe for bicycle use. Rather, most courts have held that sidewalks need only be kept reasonably safe for pedestrians, the intended primary users.⁶⁴ The determination of whether sidewalks were reasonably safe for pedestrians is a question of fact for determination by the jury. In several cases, municipalities were held liable for injuries to bicyclists because the defect was also unreasonably dangerous to pedestrians.⁶⁵

Perhaps some of the burden borne by towns trying to keep roads reasonably safe for ordinary travel, including bicycles, was eased by the development of hazard signs. While the use of signs by municipalities to avoid or limit liability evolved after the bicycle, the private use of hazard signs began with the League of American Wheelmen. Specifically, the LAW developed symbols meaning "proceed with care," and "danger."⁶⁶ Once the concept was developed, it was simple for cities and towns to adopt such signing for their own purposes.⁶⁷

Lastly, in addition to using the legal system to establish their right to both use roads and have them

safely maintained for bicycle use, bicyclists used the political system to lobby for improved roadways. Bicyclists, led by the League of American Wheelmen, assembled a coalition of interests, including farmers and railroads, that advocated for improved roads, financed by the government. This Good Roads movement, continued by automobile interests long after the bicycle "craze" of the 1890s had dissipated, led to our modern system of roads and a system of financing that literally paved the way for motorized road transportation.⁶⁸

Behavioral Approaches

Prior to the advent of the bicycle, the common law and certain legislative safety rules had been established governing the behavior of roadway users. For example, all road users must bear to the right when another vehicle approaches and may not exceed a reasonable rate of speed.

The bicycle was responsible for hand signals to other operators and the responsibility for warning those being overtaken. It also contributed to innovations in advertising law designed to enhance product-related safety.

While operator licensing in the United States waited until Connecticut passed the first automobile driver's license law in 1907,⁶⁹ in some German provinces during the 1890s, cyclists under the age of 14 could not ride without a certificate of competence, issued by the police. Cyclists under the age of 18 needed a similar document signed by their employer or a magistrate.⁷⁰

The only bicycle-related precedent for the driver's license in the U.S. was a requirement in Elkhart, Indiana that required cyclists to carry an affidavit testifying that they had ridden a bicycle for at least two months.⁷¹ How that experience could be lawfully obtained in the absence of an affidavit is not known.

Similarly, Chicago and New York required bicycles to be registered, not as a safety rule providing for the identification of reckless riders, but rather as part of a taxation scheme which cyclists bitterly opposed.⁷² Nevertheless Norman Dunham identifies bicycle "tags" as the predecessor to automobile license plates.⁷³

Early Traffic Rules

With the right to use the roadways came the obligation for bicyclists to obey the rules of the road. Rules of the road initially developed as common law pronouncements of particular courts, but as traffic and

speed increased, the need for greater specificity caused many towns and eventually states to enact statutes dealing with road user behavior.⁷⁴

In *Robertson v. Pennsylvania R. Co.*, a bicyclist was killed by a train while crossing the tracks. The Supreme Court of Pennsylvania affirmed dismissal of the suit because the deceased did not come to a full stop at the crossing as required by law; rather he performed a "bicyclist's stop" by circling around on his bike until the train had passed. He then proceeded across the tracks and was struck by a subsequent train going in the opposite direction. The court held that the accident was the fault of the cyclist, not the railroad company.⁷⁵

Similarly, when a cyclist was injured by trying to pass a wagon on the left and colliding with an oncoming carriage, the Supreme Court of Rhode Island reversed a lower court decision, finding the cyclist to be negligent and the cause of the accident.⁷⁶ Lastly, tandemists who made a sudden turn in front of a horsedrawn streetcar were denied recovery since they failed to signal their intent to turn.⁷⁷

Bicyclists also have been held liable for speeding. In 1879, as noted above, a British court decided that a bicyclist should be held liable under a statute that prohibited the driving of any sort of carriage "furiously, so as to endanger the life or limb of any passenger."⁷⁸ In *Mercer v. Corbin*, a bicyclist was held criminally liable for assault and battery while illegally speeding on a sidewalk and injuring a pedestrian.⁷⁹

In addition to these judicial actions, states and localities created new speeding regulations. For example, Washington D.C. imposed a speed limit of 15 miles per hour and Connecticut set a specific limit of 10 mph.⁸⁰ In 1897, New York City passed a comprehensive ordinance that, inter alia, set the bicycle speed limit at eight miles per hour.⁸¹ The courts not only affirmed the validity of such rules, but also insisted that they be rigorously enforced. In *Hagerstown v. Klotz*, the city was held liable for damages to the pedestrian plaintiff for injuries caused by an unknown speeding cyclist.⁸² The court held that the city has a duty not only to pass an ordinance against speeding, which it had done, but to rigorously enforce it as well.⁸³

Smith notes that the fines imposed for speeding or "scorching," as speeding on a bicycle was called, ranged from five dollars in New York City to the choice between a twenty-five dollar fine or thirty days in jail in New Orleans.⁸⁴ The growing panoply of local traffic rules led the states to assert control over traffic law beginning when Connecticut in 1897 enacted a state-wide speed limit of 10 mph. West

Virginia and New York enacted state wide laws in 1898 and 1899 respectively.⁸⁵

The custom of "scorching" also may be responsible for the modern police siren. The aldermen of New York City, noting the danger of police cyclists trying to catch "scorchers," recommended that police bicycles be fitted with a continuously sounding bell.⁸⁶ In addition, because "scorchers" would slow down when they saw a bicyclist in a police uniform, cycle cops began wearing civilian clothes—the predecessor of the unmarked police car.⁸⁷

These cases all applied established safety rules to bicyclists. A number of new rules were developed for dealing with the particular problem of bicyclists. For example, New York's comprehensive 1897 ordinance prohibited coasting and required that cyclists' feet had to be on the pedals, and hands on the handlebars at all times.⁸⁸ In *Myers v. Hinds*, a bicyclist was held negligent for striking a pedestrian who was unaware of the cyclist and the cyclist failed to warn the pedestrian of its approach.⁸⁹ This decision and similar ones led to the product requirement, in many jurisdictions, that a bicycle be equipped with lights and an audible sound warning device, which is discussed below.

Another behavioral rule, imposed by some jurisdictions for a limited period of time, concerned bicyclist behavior when approaching a horse. For example in 1896, Virginia passed a statute requiring bicyclists to dismount when approaching a team of horses that appeared frightened.⁹⁰ In 1891, the Illinois legislature had considered a similar proposal, but the opposition of cyclists defeated the bill.⁹¹

Jersey City in 1884 had a more complex ordinance that required the bicyclist to use caution if the driver of an approaching wagon raised his or her arm. If the gesture was repeated, the cyclist was required to dismount immediately. These signals were devised in 1883 by bicyclist Charles Pratt, but the high front wheel of the ordinary bicycle, in vogue at the time, made dismounting and remounting extremely difficult.⁹²

Although this ordinance was repealed soon after it had been enacted,⁹³ it represents the first rule requiring road users to signal one another and react to the signals. It is the predecessor of hand turn signals that were later followed by turn-signal lights on automobiles. As noted above in the discussion of access to the roadways, most jurisdictions soon came to recognize that bicyclists were entitled to equal use of the road and not liable if horses were frightened by the ordinary operation of a bicycle.⁹⁴

Modern Traffic Rules

Two modern developments regulate the behavior of bicyclists in traffic. The first is the so-called "rolling stop" law first enacted by the Idaho. This statute allows human-powered vehicles to slow down and yield to oncoming traffic at a stop sign or when turning right at a red light. It does not require cyclists to stop like other vehicles. This statute recognizes both that the "rolling stop" is a common bicyclist practice and that cyclists have better vision at an intersection and if forced to stop are more likely to lose control of their vehicle when stopping or re-starting. Bicyclists also are loathe to lose momentum. The law still allows bicyclists to be ticketed for unsafe intersection behavior.⁹⁵

The second set of modern behavioral rules for cyclists are the mandatory helmet usage laws. Common law courts have yet to find a bicyclist comparatively or contributorily negligent for not wearing a helmet.⁹⁶ In contrast, at least some courts have found negligence for unhelmeted riders of mopeds⁹⁷ and motorcycles.⁹⁸ In cases where helmet use is required by law, the unhelmeted rider is considered negligent as a matter of law.⁹⁹

In Australia, bicycle helmets have been required in all states for several years and have noticeably decreased head injuries and fatalities. However, part of this effect may be caused by a reduction in bicycle use estimated from to be from 15–30%¹⁰⁰ In the United States, New Jersey, Georgia, and a number of localities have statutes that require helmet use for riders below the age of 16. Rockland County, NY, Bidwell Park in Chico, California and King County, Washington require helmets for all riders. Pennsylvania, New York, Massachusetts, and California all require helmets for passengers below the age of five carried on a bicycle.¹⁰¹ Thus, at least in the U.S., the law has not yet required bicycle helmet use to the extent it requires motorcycle helmet use, even though the lower speeds of bicycles make helmet use more effective in preventing fatalities and serious head injuries.¹⁰²

Bicycle Safety in Advertising

The bicycle has played a significant role in the development of advertising law concerning safety. In the late 1970s and early 1980s, the Federal Trade Commission negotiated consent agreements concerning a number of advertisements that depicted unsafe behavior the Commission felt might be copied. For this reason, these cases involve attempts to regulate user

behavior. Such advertising depictions included unsupervised young children using the advertised product near dangerous household appliances¹⁰³ or using electrical appliances near water.¹⁰⁴

Two cases concerned adult behavior in advertising. In the case of General Foods Corp., the Commission's consent order prohibited the depiction of an adult naturalist eating wild nuts and berries. Although this was adult behavior for an adult product, Grape Nuts cereal, the Commission felt children, might copy this behavior and eat poisonous mushrooms or berries.¹⁰⁵ In the case of Mentholatum, Inc., the Commission obtained a consent order prohibiting advertising depictions of denture wearers using denture cushions for a prolonged, unsafe period of time, fearing that denture wearers might emulate this unsafe behavior.¹⁰⁶

The only case in this series that obtained relief beyond a mere prohibition of showing the unsafe conduct in advertising involved bicycles. In the case of AMF, Inc., the Commission obtained a consent order prohibiting bicycle advertisements showing unsafe riding and ordered that public service announcements on bicycle safety be produced and distributed by the advertiser.¹⁰⁷ Although this consent agreement does not constitute formal legal precedent like a litigated order, this innovative remedy goes beyond other Commission remedies such as corrective advertising, because the dissemination of the public service announcements likely exceeded AMF advertising. Furthermore, corrective advertising is included in normal advertising and the corrective message may be overshadowed by the selling message of the advertising. These public service announcements only described safe bicycle riding practices and did not also try to sell bicycles.

Advertising industry self-regulation also has upheld the principle that bicycle advertising should not show unsafe behavior that might be copied by children. The Children's Advertising Review Unit of the National Advertising Division of the Council of Better Business Bureaus recently challenged bicycle advertising that showed a helmetless "champion of free-style riding" doing a handstand on the front tire of an inverted bicycle. The company responded that it did not plan to continue running this ad and it would take safety concerns into account in future advertising.¹⁰⁸

Despite these regulatory actions, common law negligence does not require advertising to avoid showing unsafe bicycling behavior—at least in advertising for products other than bicycles. In *Sakon v. Pepsico, Inc.*,¹⁰⁹ the Supreme Court of Florida af-

firmed a lower court ruling that a soft drink advertiser had breached no duty of care owed to the fourteen-year-old plaintiff who was injured attempting to perform a bicycle stunt depicted in a commercial for Mountain Dew.

The court held it was not foreseeable that the plaintiff would try to copy the stunt, riding a bicycle off an embankment into a body of water to the encouragement and delight of young spectators, depicted in the advertising. Furthermore, the court noted that television often shows activities, such as circus acts, that would be dangerous if untrained viewers attempted them and that the commercial was directed toward encouraging viewers to drink the soft drink, not to undertake the activity.¹¹⁰ This language suggests that the court might have found negligence, consistent with the cases discussed above, if this stunt had been shown in advertising for bicycles. This decision has been criticized for not adequately considering the likelihood that young children would emulate the depicted activity.¹¹¹

Product-Related Approaches

Given the development of both the tort of negligence and the bicycle in the last half of the 19th century, it may initially appear surprising that negligence law did not have any influence over the design of the bicycle. Negligence law was used to find cities liable for unsafe streets and hold cyclists liable for unsafe riding behavior, but not to hold manufacturers responsible for negligent design or construction of bicycles. Speculation suggests that if high-wheeled bicycles were made today, there would likely be product liability lawsuits suggesting their designs were negligently unstable.

By comparison, all-terrain vehicles, which are associated with only 240 deaths annually and 86,400 other injuries in 1986 over only 6.7 million users, are the subject of over 300 product liability lawsuits reportedly currently pending against the industry leader. Most of these involve the alleged instability of three-wheeled ATVs. A coalition of 110 plaintiff's lawyers has formed the ATV Litigation Group to share information.¹¹² This coalition and the number of pending suits despite the comparatively small number of injuries indicates the products liability bar's belief that all-terrain vehicles may be defectively designed.¹¹³

Apparently the bar has no such belief about the ATVs' older cousin, the two-wheeled, non-motorized bicycle, which causes many more deaths and injuries per year. Perhaps the instability of the two-wheeled

bicycle is a more obvious danger than the instability of three-wheeled ATVs. Although bicycles are used more often than ATVs, Paul Hill, author of *Bicycle Law and Practice*, notes: [t]here are relatively few reported bicycle product liability cases.¹¹⁴ He presents thirteen reported cases and a couple of others.¹¹⁵ An additional sixteen cases have been found.¹¹⁶ Thus even in the present day, tort law has little to say about the design of the bicycle.

In addition to bicycle design not being considered problematic under the common law, another reason the common law provided little influence on bicycle design in the 1900s is that the law of products liability had not been developed at that time. Products liability law began with the classic 1916 case of *MacPherson v. Buick Motor Co.*, which first held a manufacturer liable to a consumer for negligently making a product even though the consumer bought the product from a dealer and not from the manufacturer directly.¹¹⁷ In 1960, the automobile was the subject of a decision that extended the implied warranty of safety beyond food and drink to all consumer products, and in 1968, an automobile producer was held liable for not making the product “crashworthy”—safe for the occupant in the event of a crash.¹¹⁸ Thus, the bicycle can only claim to have indirectly influenced product liability law through its motorized descendant, the automobile.

Regulatory law, on the other hand, has been influencing bicycle design for almost a century. The early efforts to regulate bicycle design involved limited changes such as requiring lights or bells or prohibiting racing handlebars. Modern efforts are more comprehensive.

Early Product Regulation

Some product-related approaches to improving safety are closely related to behavioral approaches. For example, because of its silence, the bicycle was the first vehicle for which some jurisdictions required that lights and audible signalling devices such as bells or horns be used.¹¹⁹ Since these devices had to be used by the operator they could be characterized as a behavioral approach. However, they were commonly required to be attached to the bicycle and so will be treated here as product-related approaches to improving safety.

According to Robert Smith, by 1897 the requirement that bicycles be equipped with a bell or other warning device was “almost national in scope.”¹²⁰ He also notes that bell ordinances tended to be disregarded. In Minneapolis, it was admitted that not more

than twenty percent of all bicycles were so equipped and violators were not being arrested. In Emporia, Kansas, where the local police tried to enforce the law by warning almost one hundred cyclists, the riders staged a protest one night by banging pans and cowbells, blowing horns, and generally making as much noise as possible. Then they returned to ignoring the law.¹²¹

Ordinances requiring lights for night riding suffered similar treatment. When New York tried to enforce its light law, the Chairman of the Police Commissioners, Teddy Roosevelt—the future president, ordered that cyclists not be “thrown into the tank” with common criminals. In 1899, the Collins Act extended this lenient treatment throughout New York State. This statute provided that if the cyclist’s lamp stopped working, he or she could proceed home at a rate under six miles an hour if the bell was sounded every thirty feet.

This law may have started the custom of bribing police to avoid prosecution for minor traffic offenses. It provided that an arrested cyclist could pay five dollars to the arresting officer as security for appearance in court the next day, and be released. Police commissioners soon announced that they expected officers to turn in this money, but what actual practice was is unknown.¹²²

Statutes requiring bells or lights were found to be valid by the courts.¹²³ Under the common law, a cyclist travelling at night without a light or audible warning device was found contributorily negligent and barred from recovering damages after colliding with a wagon driver, even one who was found negligent for being on the wrong side of the road.¹²⁴

Smith also notes that New York City led the way in enacting the first comprehensive set of traffic laws to cover all vehicles, not just bicycles. This set of laws required all vehicles to use a white light after dark and cyclists to sound a warning before passing. Smith credits this comprehensive ordinance as being a model for later automobile laws.¹²⁵

In addition, the bicycle was the first vehicle, and perhaps first consumer product, to be subject to a safety standard on the product design. Some jurisdictions prohibited “drop” handlebars because they were used by “scorchers”—bicyclists who desired to travel at the highest speeds possible. The District of Columbia Court of Appeals found the ordinance to be constitutional, but also held that the reasonableness of such an ordinance was a question of fact so that the trial court had to consider factual evidence concerning the reasonable nature of the ordinance.¹²⁶

Modern Bicycle Safety Regulations

Like strict liability in tort law, modern product regulation at the federal level began with the bicycle's technological offspring, the automobile—shortly after the publication of consumer advocate Ralph Nader's book, *Unsafe at Any Speed*.¹²⁷ The bicycle has played a limited, but significant role in the development of modern safety regulation. In addition to lights and audible warning devices, some states also require brakes, seats for each rider or passenger and restrict handlebar height to shoulder level or below.¹²⁸ Specifically, the bicycle was the subject of a safety standard enacted by the Consumer Product Safety Commission early in its young history. The bicycle safety standard, like most of the CPSC's early rules, was criticized for being overly regulatory. It far exceeded any state law standards. This criticism of many CPSC actions ultimately led to a cutback in the agency's authority and budget.¹²⁹

The Consumer Product Safety Commission's bicycle standard is twenty pages long and took over five years to promulgate. It imposes significant compliance costs on both manufacturers and consumers. For example, it establishes frame and component stress tests, braking system tests, mandates the use of special reflectors, and generally prohibits numerous types of equipment and designs that are deemed unsafe.¹³⁰

The CPSC's interest in bicycles was based on the fact that bicycles are associated with more consumer injuries than nearly any other consumer product. For example, in 1981, the only "product" associated with more injuries than bicycles was steps and stairs.¹³¹ In 1986, the CPSC Directorate for Economic Analysis estimated the cost of bicycle-related injuries and deaths to be \$7.2 billion.¹³²

The standard had its origin in the President's Commission on Product Safety. The Commission condemned children's high-rise bicycles in its *Final Report*. The Report noted that accessories then available such as steering wheels instead of handlebars, large protruding gear shifters, banana seats, and "wheelie" wheels, promoted injuries and unsafe practices such as riding double and performing "wheelies." It further announced that high-rise models accounted for 45% of all bicycles but were associated with 57% of all injuries. It condemned the industry for not developing product standards including ones for lights and reflectors.¹³³

At this time the Bicycle Manufacturers Association did develop a safety standard which was issued in 1970. The government used the BMA proposal as

a model for its bicycle safety standard for bicycles used by those under 16 years old, proposed on May 10, 1973. This proposal was made under the Federal Hazardous Substances Act by the Food and Drug Administration.¹³⁴ This proposal did not include a proposed effective date. It listed the problems it sought to address:

[a] study of the product causation data identified the following areas of product deficiency: (1) The rider's foot slipping off of the pedal, (2) brake failure, (3) a component failure, and (4) poor night visibility. Secondary injury causes relating to protruding hardware, sharp edges, and sharp points are also shown to be a factor in the accident picture.¹³⁵

The proposed rule, based on the industry standard, was much broader in scope than this relatively modest appearing list of possible product hazards. The proposed rule covered all bicycles intended for use by children of less than 16 years of age and established design or performance standards for nearly every bicycle component. Yet the twenty-page staff report by the FDA's Bureau of Product Safety that purportedly served as a basis for the rule only identified foot slippage off the pedal and failure of the brakes, pedals and gearing as causes of accidents.¹³⁶ Moreover, the report identified unsafe riding techniques which would not be affected by the proposed regulation (e.g., riding double, jumping curbs, stunting, excessive speed and "wheelies") as a substantial cause of children's bicycle accidents.

Four days after the rule was first proposed, functions under the Federal Hazardous Substances Act were transferred to the newly-created CPSC. The Commission published its "final" regulations in 1974, revised them in 1975 and published them again in November 1975 with effective dates in 1976.¹³⁷

CPSC economist Gregory Rodgers notes that the CPSC had estimated that 17% of all bicycle-associated injuries are related to product failure and would be addressed by the standard.¹³⁸ However, this estimate was derived from a sample of bicycle injuries designed to over-represent product-related injuries. The CPSC consultants who analyzed this biased sample estimated that the proportion of product-related injuries for the population as a whole was 8 percent.¹³⁹

A lower estimate of the proportion of bicycle-related injuries caused by product failure is given by Jerrold Kaplan's 1974 study of regular adult bicyclists. He found that only 3% of all accidents, even those not severe enough to be reported to N.E.I.S.S., were caused by product failure.¹⁴⁰ Admittedly, the bicyclists in this sample were likely to maintain their

bicycles in better than average condition. Of this small proportion, 3–8% of all injuries, perhaps as many as 90% of the failures occur in bicycles at least three years old.¹⁴¹ Product standards covering new products cannot prevent eventual product failures from worn components or poorly maintained bicycles. Many bicycle components such as brakes and gearing require periodic maintenance and the replacement of worn parts.¹⁴² Thus, the actual proportion of injuries which the CPSC could have possibly affected through a product standard is probably less than two percent—far below the CPSC's 20% goal across all products.

Two individual consumers and one group of consumers challenged the legality of the promulgation itself and sixteen of the standard's provisions. On June 1, 1977, the Court of Appeals for the District of Columbia upheld the promulgation and most of the challenged provisions.¹⁴³ It upheld the CPSC's authority to issue standards covering nearly all bicycles under the Federal Hazardous Substances Act, which only applied to articles intended for use by children. The court also upheld the Commission's notice of rulemaking and its authority to issue design as well as performance standards. With four exceptions, the court upheld the Commission's support for specific provisions stating that it was not required to develop a precise "body count."¹⁴⁴

The court only remanded a broad prohibition of "protrusions," handlebar width restrictions, a brake system heat test that only applied to hand brakes, not to foot brakes, and a provision on pedal threads for which the court did not understand the Commission's justification. The Commission later republished its regulation with these four provisions deleted.¹⁴⁵

Commentators have criticized this rule for being a blatant attempt to restrict foreign competition.¹⁴⁶ This criticism is misplaced.¹⁴⁷ The real goal of the domestic industry in proposing this rule was to avoid a myriad of conflicting state safety regulations.¹⁴⁸

The rule should be criticized for imposing costs on bicycle manufacturing while yielding little, if any, safety benefit. There is little evidence that it has significantly reduced injuries associated with bicycles.¹⁴⁹

In fact, the rule is significantly associated with an increase rather than a decrease in the bicycling injury rate.¹⁵⁰

One possible explanation for this unexpected result is the rule's substandard reflector requirement. The rule requires that all bicycles be equipped with special reflectors on the front, rear, sides, and pedals. These reflectors were touted as having a fifty percent increase in performance over conventional reflectors,

but while the required rear reflector, for example, does have a broader range of reflectivity, the SAE (conventional) reflector is 7–10 times brighter when illuminated directly.¹⁵¹

There is little doubt that the CPSC's reflector standard is inadequate for safe nighttime riding.¹⁵² The CPSC as much as admitted this fact in a press release. The release noted that in 1975, nighttime deaths accounted for 30% of all bicycle fatalities, but in 1982, the figure had risen to 42%. It further urged bicyclists to use front and rear lights, a leg light, and reflective clothing in addition to the mandated reflectors to enhance their nighttime conspicuity.¹⁵³ The National Highway Traffic Safety Administration recently reported that the proportion of bicyclist fatalities occurring between 6:00 P.M. and 6:00 A.M. had risen to 45.6%.¹⁵⁴

Contrary to the CPSC standard, the National Committee for Uniform Traffic Laws and Ordinances continues to recommend laws requiring a front headlamp and rear reflector or light.¹⁵⁵ Presently, all fifty states and the District of Columbia have adopted this recommendation.¹⁵⁶ Furthermore, at least one court has recognized the inadequacy of CPSC reflectors in a product liability case. It held a retailer negligent for failing to warn a consumer that reflectors are inadequate for nighttime riding and that a light should be installed.¹⁵⁷ The court seems to be saying that if the CPSC reflectors mislead bicyclists into thinking they can safely ride at night, retailers have a duty to correct this misimpression.

The Subsidization Hypothesis Re-visited

Contrary to those commentators who analyze tort law in the 19th century to determine the legal system's treatment of new technology, this paper suggests the importance of also examining legislative regulation, particularly at the state and local level. Although the courts and legislative bodies were both initially hostile toward the bicycle, both soon accepted this new form of transportation. Judicial acceptance was assured by new statutes and ordinances.

Perhaps the hospitality of the legal system to this new form of technological transportation was not reflective of the legal system's acceptance of technology in general. In the 1890s, the bicycle became widely used by all sorts of people, which enabled cyclists to lobby effectively for legal rights. Technology in the workplace or with railroads and other forms of transportation was not enjoyed at a personal level like the bicycle. Furthermore, those injured by such technology could sue an impersonal business, with

significant financial resources, rather than an individual, much like them, who rode the bicycle.

This hypothesis, that the bicycle as personal technology was more welcomed than the impersonal technology of big business, may also explain why the bicycle had very little influence on the development of negligence law. Smith reports that according to the *Chicago Tribune*, bicycle accidents were a significant problem. In 1897, the paper noted that three hundred bicycle mishaps had been reported to the police in the months of June and July. The paper further stated: "As a source of accidents, the wheel [bicycle] knows no rivals... even the deadly trolley has been forced to yield the palm."¹⁵⁸

Yet scholars who have examined court records for negligence cases do not find enough bicycle accidents to report them as a separate category. For example, Robert Silverman reports on traffic accidents in Boston in 1890 and 1900 during which time streetcars rose from 14% of all accidents to 42%, but he does not mention bicycles.¹⁵⁹ Similarly, Bergstrom examines traffic deaths and lawsuits in New York City for 1870, 1890, and 1910, and does not mention bicycle deaths or lawsuits.¹⁶⁰ Friedman examines all personal injury cases in Alameda County, California from 1880–1900 and also fails to mention bicycle accidents.¹⁶¹ This is particularly surprising since he explicitly studied the time period of the so-called bicycle boom in the late 1890s.

Regardless of the reason for these omissions, this paper suggests that the legal system has been relatively friendly toward the bicycle.¹⁶² It was welcomed, after some hesitation, in the 19th century and has avoided substantial product liability litigation in the 20th century. While the Consumer Product Safety

Commission appears to have "over-regulated" the bicycle, it did so at the request of the bicycle industry. The findings of this case study are more consistent with the hypothesis that the legal system subsidized technology rather than attempted to fully compensate those injured by it. Even mandatory helmet legislation, which is now being considered by several states, is decades behind similar legislation for cars and motorcycles.

Conclusion

While the bicycle's offspring the automobile was responsible for several innovations in products liability law, and the motorcycle gets credit for mandatory helmet legislation that is just now gaining momentum for bicycle use, the bicycle is directly responsible for a number of innovations in safety law, broadly defined. The bicycle first established the principles of roadway access and fitness for new vehicles as well as equal rights for all vehicles. It also was responsible for the development of roadway hazard warning signs. The bicycle can claim credit for a number of behavioral laws such as signaling other vehicle operators and the remedy of using public service announcements to correct unsafe product usage depicted in advertising. The bicycle also established early precedents for operator licensing and license plates that were made common for its motorized descendants. Finally, the bicycle may be the first consumer product to endure governmentally imposed safety standards about its design and required safety features such as lights and audible signalling devices—features that were later required of cars and motorcycles.

Notes

1. James McGurn, *On Your Bicycle* 31 (1987).
2. See e.g., Gary T. Schwartz, "The Character of Early American Tort Law," 36 *UCLA L. Rev.*, 641 (1989); Gary T. Schwartz, "Tort Law and the Economy in Nineteenth-Century America: A Reinterpretation," 90 *Yale L. J.*, 1717 (1981).
3. See e.g., Lawrence M. Friedman, "Civil Wrongs: Personal Injury Law in the Late 19th Century," 1987 *Am. Bar Fond. Res.* 351 (1987); Lawrence M. Friedman, *A History of American Law* (2d ed. 1985).
4. See e.g., Peter W. Huber, *Liability* (1988); Walter K. Olson, *The Litigation Explosion*, 6–7 (1992).
5. See e.g., W. Kip Viscusi, *Fatal Tradeoffs* (1992).
6. The latter term is used broadly to include any a priori rule intended to reduce the likelihood or severity of injuries such as statutes enacted by state or federal legislatures, municipal ordinances and, later, rules of regulatory agencies.
7. Steven Shavell, *An Economic Analysis Of Accident Law*, 277–290 (1987); Susan Rose-Ackerman, "Tort Law in the Regulatory State," in *Tort Law And The Public Interest*, 80 (Peter Schuck, ed. 1991).
8. See David Bollier & Joan Claybrook, *Freedom From Harm*, 163–187 (1986). A recent study used

- conditional logic techniques to find that the CPSC "overselected" projects in 1977 that involved mandatory product standards. Lacy Glenn Thomas, "Revealed Bureaucratic Preference: Priorities of the Consumer Product Safety Commission," 19 *Rand J. Econ.*, 102 (1988).
9. See, e.g., U.S. Consumer Product Safety Commission, *Annual Report*, 22 (1982).
 10. See Teresa M. Schwartz, "The Consumer Product Safety Commission: A Flawed Product of the Consumer Decade," 51 *Geo. Wash. L. Rev.*, 32, 37 n. 24 (1982).
 11. For example, in 1977 the CPSC announced that its new bicycle safety standard would address 17% of all bicycle-related injuries. A recent study suggests that it actually addresses less than 2% of such injuries. See Ross D. Petty, "Regulation vs. the Market: The Case of Bicycle Safety," (pts. 1 & 2) 2 *Risk: Issues in Health & Safety* 77, 99, 111 (1991).
 12. Steven Shavell, *supra* note 6, at 279.
 13. William Haddon, "Advances in the Epidemiology of Injuries as a Basis for Public Policy," 95 *Pub. Health Rep.*, 411, 417 (1980).
 14. See e.g., National Committee for Injury Prevention and Control, *Injury Prevention: Meeting the Challenge*, 8 (1989).
 15. *Mercer v. Corbin*, 117 Ind. 450, 3 L.R.A. 221, 223 (Ind. S.Ct. 1989).
 16. Note, *Bicycle Law*, 47 L.R.A. 289 (1900).
 17. See William L. Prosser, *Law of Torts* 357 (4th ed. 1971) and *William v. St. Joseph*, 166 Mo.App. 299, 148 S.W. 459 (1912) (bicyclist on sidewalk in violation of ordinance deemed a trespasser and prohibited from recovery). More modern cases sometimes do not follow this harsh ruling. See e.g., *Acosta v. County of Los Angeles*, 56 Cal.2d 208, 363 P.2d 473 (1961), and *Winchester v. Finchum*, 201 Tenn. 604, 301 S.W.2d 341 (1957). Bicyclists also have been denied recovery for injuries because they have been found contributorily negligent as a matter of law for riding on sidewalks in violation of an ordinance. See *Hart v. Brookhaven*, 261 App. Div. 923, 25 NY2d 428 (1941) and *Kenney v. Hampton*, 73 N.H. 45, 58 A. 1046 (1904).
 18. Norman L. Dunham, *The Bicycle Era in American History*, 42, 111-112, 142-43 (1956).
 19. *Id.* at 271-73.
 20. *Re Wright* 29 Hun 357 (1883).
 21. Dunham, *surpa* note 18, at 290, 293.
 22. *State v. Yopp*, 97 N.C. 477, 2 S.E. 458 (1887).
 23. *Twilley v. Perkins*, 77 Md. 252, 19 L.R.A. 632 (1893).
 24. 19 L.R.A. at 635.
 25. *Taylor v. Goodwin*, 4 Q.B. Div. 228 (1879). This decision was incorporated into the statutory definition of carriage in 1889. See Anthony Bird, *Roads and Vehicles*, 42 (1969).
 26. Dunham, *supra* note 18, at 245-46.
 27. *State v. Collins*, 16 R.I. 371, 3 L.R.A. 394 (1888).
 28. See e.g., *Foote v. American Product Co.*, 195 Pa. 190 (1900).
 29. *Thompson v. Dodge*, 58 Minn. 555, 28 L.R.A. 608 (1894).
 30. *Holland v. Bartch*, 120 Ind. 46, 22 N.E. 83 (1889).
 31. *Mercer v. Corbin*, 117 Ind. 450, 3 L.R.A. 221 (1889).
 32. *Swift v. Topeka*, 43 Kan. 671, 8 L.R.A. 772 (1890).
 33. *Id.*, 8 L.R.A. at 774. Finding a fundamental right to use the roadways is consistent both with views advocated by bicyclists at this time and with later cases allowing automobiles to use the road. See Charles E. Pratt, "Legislation as to Bicycles in Highways," 10 *Outing* 158 (May 1887) and Edward C. Fisher and Robert H. Reeder, *Vehicle Traffic Law*, 4 (1974), respectively. Bicyclist Karl Kron's ardent desire for roadway access led him to coin the term "road hog" to describe horse riders as the "Great American Hog in whose mind the mere act of purchasing a horse creates the curious hallucination that he simulataneously purchases an exclusive right to the public highways." M. G. Lay, *Ways of the World*, 143 (1992).
 34. See e.g., *Lawson v. Fordyce*, 237 Iowa 28, 21 N.W.2d 69, 87 (1945)(persons driving animals along road have right to use road).
 35. The General Highway Law of the State of New York cited in George B. Clementson, *The Road Rights and Liabilities of Wheelmen*, 137 (1895).
 36. For a listing of some such statutes, see Note, *supra*, note 16, at 290. Pennsylvania's statute, for example, passed in 1889, gave human-powered vehicles the same rights and obligations as horse-drawn carriages. Pa. Stat. Ann., Title 75, Sec. 2201 (1889). This antiquated language remained in effect until 1976. See Pa. Stat. Ann., Title 75, Secs. 3501-3507 (1976).

37. Robert A. Smith, *A Social History Of The Bicycle*, 185 (1972). In contrast to the United States, where cycling became legally protected, in Germany, many roads were restricted to bicycles including nearly half of all the roads in Bavaria. See McGurn, *supra* note 1, at 94.
38. *Id.* at 190.
39. Philip P. Mason, *The League Of American Wheelmen and the Good Roads Movement*, 61 (1957). Dunham, *supra* note 18, at 478, also notes that Ohio, Maryland, and Chicopee, Massachusetts enacted similar laws.
40. Dunham, *supra* note 18, at 478.
41. As noted in note 18, *supra*, sidewalk bans began in the "boneshaker" craze of 1869.
42. *Purple v. Greenfield*, 138 Mass. 1 (1884) and *Lee v. Port Huron*, 55 L.R.A. 308, 309 (S.Ct. Mich. 1901). Cf. *Gagnier v. Fargo*, 11N.D. 73, 88N.W. 1030 (1902)(ordinance prohibiting vehicles from sidewalk operation held not to include bicycles where bicycle-specific statutes impliedly allowed such use). Roller skates also are not automatically prohibited from the sidewalk. See *Collins v. Philadelphia*, 227 Pa. 121, 75 A. 1028 (1910).
43. See "Bicycles," 7 *Am. Jur.*, 735, 744 n.4.
44. Smith, *supra* note 37, at 185.
45. *Lechner v. Newark*, 19 Misc. 452, 44 N.Y. Supp. 556 (1896).
46. See e.g., *Myers v. Hinds*, 110 Mich. 300 (1896).
47. *Commonwealth v. Forrest*, 170 Pa. 40, 29 L.R.A. 365 (1895); *Mercer v. Corbin*, 117 Ind. 450, 3 L.R.A. 221 (1889); *State v. Aldrich*, 70 N.H. 391, 47 A. 602 (1900).
48. *Jones v. City of Williamsburg*, 97 Va. 722, 34 SE 883 (1900).
49. *Lee v. Port Huron*, 55 L.R.A. 308, 309 (S. Ct. Mich. 1901).
50. See Smith, *supra* note 37, at 188 and Note, *supra* note 16, at 296. Similar activities were taking place in Germany. See McGurn, *supra* note 1, at 94.
51. *Fuller v. Redding*, 13 App. Div. 61, 43 N.Y. Supp. 96 (1897).
52. Lay, *supra* note 33, at 144.
53. See Dunham, *supra* note 18, at 481; see also Smith, *supra* note 37, at 216.
54. *Minnesota v. Bradford*, 47 L.R.A. 144 (1899).
55. John Forester, *Effective Cycling*, 525 (6th ed. 1993). For a case upholding the validity of prohibiting bicycles from interstate highways, see *Wherett v. Doyle*, 456 F. Supp. 203 (D. Neb. 1978).
56. *Id.* at 528-29.
57. *Richardson v. Danvers*, 50 L.R.A. 127 (1900).
58. *Id.* at 128.
59. *Id.*
60. See e.g., *Fox v. Clarke*, 25 R.I. 515, 65 L.R.A. 234, 236 (1903) and the cases cited therein.
61. See e.g., *Hendry v. North Hampton*, 64 L.R.A. 70 (New Hampshire S.Ct. 1903) and *Lee v. Port Huron*, 55 L.R.A. 308, 309 (S. Ct. Mich. 1901)(sidewalk use).
62. See e.g. *Bethel v. City of St. Joseph*, 171 S.W. 42 (1914).
63. *Molway v. City of Chicago*, 88 NE 485, 486 (1909).
64. See e.g., *Winchester v. Finchum*, 201 Tenn. 604, 301 SW2d 341 (1957); *Le May v. Oconto*, 229 Wis. 65, 281 NW 688 (1938); *Hill v. Reaves*, 224 Ala. 205, 139 So. 263 (1932); *Gagnier v. Fargo*, 11 N.D. 73, 88 NW 1030 (1902); *Morrison v. Syracuse*, 53 App. Div. 490, *aff'd*, 175 NY 523, 67 NE 1085 (1900); *Wheeler v. Boone*, 108 Iowa 235, 78 NW 909 (1899).
65. See e.g., *Winchester v. Finchum*, 201 Tenn. 604, 301 SW2d 341 (1957); *Le May v. Oconto*, 229 Wis. 65, 281 NW 688 (1938); *Lee v. Port Huron*, 128 Mich. 533, 87 NW 637 (1901). Accord, *Guidi v. Great Barrington*, 272 Mass. 577, 172 NE 916 (1930)(2-4 inch difference in the height of sidewalk blocks not so slight as to not constitute a defect as a matter of law).
66. See Gary Allan Tobin, "The Bicycle Boom of the 1890's: The Development of Private Transportation and the Birth of the Modern Tourist," 7 *J. Popular Culture*, 838, 843 (Spring 1974), and Smith, *supra* note 37, at 221.
67. See Lay, *supra* note 33, at 189.
68. For a thorough discussion of bicyclists' dominant role in the early Good Roads movement, see Mason, *supra* note 39. Bicyclists in Great Britain obtained an 85% increase in roadway expenditures between 1890 and 1902. See Bird *supra* note 25, at 63-64.
69. See Fisher and Reeder, *supra* note 33, at 20.
70. See McGurn, *supra* note 1, at 94.
71. See Smith, *supra* note 33, at 199.
72. *Id.* at 224-25.

73. See Dunham, *supra* note 18, at 481. According to Lay, *supra* note 33 at 178, a 1901 New York State statute first required automobile "license plates" by mandating that car owners prominently display their initials.
74. For an amusing selection of behavioral rules involving bicycling but only peripherally related to safety, including rules concerning bicycling and eating, drinking, proper dress, and romance, see Robert W. Pelton, "The Letter of the Law," *BikeReport*, 8 (July 1987).
75. *Robertson v. Pennsylvania R. Co.*, 180 Pa. St. 43, 36 A 403 (1897).
76. *Pick v. Thurston*, 25 R.I. 36, 54 A. 601 (1903).
77. *Lurie v. Metro. Street R. Co.*, 18 Misc. 81, 40 N.Y. Supp. 1129 (1896).
78. *Taylor v. Goodwin*, 4 Q.B. Div. 228 (1879).
79. *Mercer v. Corbin*, 117 Ind. 450, 3 L.R.A. 221 (1889).
80. Dunham, *supra* note 18, at 475. In Britain, an 1865 statute kept speed limits to the pace of walking (4 mph in the country; 2 mph in the city) and required road locomotives to be accompanied by a person ahead and a person behind carrying red flags until an 1896 statute raised the limit to 20 km/h and eliminated the red flag requirements Lay, *supra* note 33, at 194 and Bird, *supra* note 25, at 41.
81. Smith, *supra* note 37, at 202.
82. 54 L.R.A. 640 (1901).
83. *Id.* at 641.
84. Smith, *supra* note 37, at 193.
85. Dunham, *supra* note 18, at 475.
86. Smith, *supra* note 37, at 200. Similarly, in 1888, Great Britain required bicyclists to sound a bell continuously while in motion. Bird, *supra* note 25, at 42.
87. Dunham, *supra* note 18, at 475.
88. Smith, *supra* note 37, at 202.
89. *Myers v. Hinds*, 110 Mich. 300 (1896).
90. Note, *supra* note 16, at 295.
91. Smith, *supra* note 37, at 184.
92. *Id.* at 11.
93. *Id.* at 183-84.
94. See e.g., *Holland v. Barch*, 120 Ind. 46, 22 N.E. 83 (1889), *Thompson v. Dodge*, 58 Minn. 555, 28 L.R.A. 608 (1894).
95. Carl Bianchi and John Schubert, "Controversy in the Great Potato: Idaho's New Rolling Stop Law," *Bicycling*, 192 (March 1983).
96. See e.g., *Walden v. Montana*, 818 P.2d 1190 (1991) (trial court's admission of lack of helmet use, not as evidence of bicyclist negligence, but for possible damages reduction held to be harmless error since no damages were awarded).
97. See e.g., the British case of *Capps v. Miller*, 2 All ER 333 (1989) (compensation reduced 10% for failure to wear a helmet).
98. See e.g., *Oldakowski v. Heyen*, 145 Wis. 2d 900, 428 NW2d 644 (1988); *Halvorson v. Voeller*, 336 NW2d 118 (1983) and Graham, "Helmetless Motorcyclists—Easy Riders Facing Hard Facts: The Rise of the 'Motorcyclist Helmet Defense'," 41 *Ohio St. L.J.* 233 (1980).
99. See e.g., *Green v. Gaydon*, 174 Ga. App. 796, 331 SE2d 106 (1985); *Dean v. Holland*, 76 Misc. 2d 517, 350 NYS2d 859 (1973)(lack of required minibike helmet constitutes negligence if causally related to the accident); *Smith v. Hyatt*, 270 So.2d 324 (La. App. 4th Cir. 1972)(lack of required minibike helmet constitutes negligence if causally related to avoiding facial injuries).
100. "Mandatory Helmet Laws Pick Up Speed," 11 *The Helmet Update*, 1 (June 1993).
101. *Id.*
102. See E. A. Waters, "Should Pedal Cyclists Wear Helmets? A comparison of head injuries sustained by Pedal cyclists and Motorcyclists in road traffic accidents," 17 *Injury*, 372 (1986).
103. *Uncle Ben's Inc.*, 89 F.T.C. 131 (1977) (consent order prohibiting depictions of unsupervised children near active gas stove).
104. *Mego Int'l Inc.*, 92 F.T.C. 186 (1978) (electric hair dryer used to dry doll's hair near water).
105. 86 F.T.C. 831 (1975).
106. 96 F.T.C. 757 (1980).
107. 95 F.T.C. 310 (1980). See also *Benton & Bowles, Inc.*, 96 F.T.C. 619 (1980) (advertising agency).
108. *General Bicycle & Moped Co., Inc.* NAD Case Report 22 (July 18, 1988).

109. 553 So.2d 163, 189 Fla. LEXIS 1181 (Fla. 1989).
110. *Id.* at 553 So. 2d at 166–67.
111. Marilyn Sipes, “The Mountain Dew Decision is Hard to Swallow: *Sakon v. Pepsico, Inc.*,” 11 *Loy. Ent. L. J.* 159 (1991).
112. *Wall Street Journal*, 29 (Feb. 11, 1987) and *Legal Times of Washington*, 1, 8–10 (Jan. 22, 1987). See also Gregory Rodgers, “The Effectiveness of Helmets in Reducing All-Terrain Vehicle Injuries and Deaths,” 22 *Accident Anal. & Prev.*, 47 (1990) (1100 ATV fatalities and 400,000 emergency room-treated injuries since 1982).
113. The Consumer Product Safety Commission and the Department of Justice recently announced a settlement of a lawsuit to recall all three-wheeled ATVs. The settlement called for a ban of all future sales of three-wheeled ATVs but has been criticized as too lenient. *The National Law Journal*, 8 (May 2, 1988).
114. Paul F. Hill, *Bicycle Law and Practice*, 27 (1986).
115. *Id.* at 27–36. Hill summarizes the following cases: *Poppell v. Waters*, 190 S.E.2d 815 (Ga. App. 1972), *Means v. Sears, Roebuck*, 550 S.W. 2d 780 (Mo. 1977), *Reis v. MTD Products*, 456 A.2d 211 (Pa. Super. 1983), *Walden v. Sears, Roebuck and Co.*, 654 F. 2d 443 (5th Cir. 1981), *Caporale v. Raleigh Industries*, 382 So.2d 849 (Fla. 1980), *Washington v. Otasco, Inc.*, 603 F. Supp. 1295 (N.D. Miss. 1985), *Outwater v. Miller*, 158 N.Y.S.2d 562 (1957), *Khoder v. AMF, Inc.*, 539 F.2d 1078 (5th Cir. 1976), *Tomczuk v. Town of Cheshire*, 217 A.2d 71 (Conn. 1965), *Levin v. Cleveland Welding Co.*, 87 N.E.2d 187 (Ohio 1963), *Wilson v. Naifeh*, 539 P.2d 390 (Okla. 1975), *Barnes v. Sears, Roebuck, and Co.*, 406 F.2d 859 (4th Cir. 1969), and *Parisi v. Carl W. Bush Co.*, 67 A.2d 875 (N.J. 1949).
116. *Kennerson v. Lima Bargain Center*, 1990 Ohio App. LEXIS 1234 (1990), *Logan v. West Coast Cycle Supply*, 553 N.E.2d 1139 (1990), *McPhillips v. Zayre Corp.*, 582 A.2d 747 (1990), *Wilson v. Bicycle South Co.*, 915 F.2d 1503 (1990), *Haverstock v. TI Raleigh*, 557 A.2d 1068 (1988), *Firestone Tire & Rubber Co.*, 452 A.2d 1068 (1988), *Miller v. Bronx Bicycle Center, Inc.*, 7 Pl. L. Rep. 39 (1988), *Mattia v. Sears, Roebuck & Co.*, 531 A.2d 789 (1987), *Schaffner v. Chicago & North Western Trans. Co.*, 515 N.E.2d 298 (1987), *Kern v. AMF, Inc.*, 6 Pl. L. Rep. 59 (1987), *Harris v. Giant Man. Co.*, 4 Prod. Liab. L. Rep. 8 (Jan. 1985), *Steele v. Murray Ohio Mfg. Co.*, 4 Pl. L. Rep. 39 (1985), *Capuano v. Almart Stores, Inc.*, 1 Prod. Liab. L. Rep. 78 (Aug. 1982), *Romanov v. Ann & Hope Factory Outlet*, 417 A.2d 1375 (1980), *Maddux v. R.O.E.M., Inc.*, 264 S.E.2d 31 (1979), *Hacher v. Shofer and Smelkinson*, 248 A.2d 351 (1968).
117. 217 N.Y. 382, 111 N.E. 1050 (1916).
118. See *Henningson v. Bloomfield Motors, Inc.*, 32 N.J. 358, 161 A.2d 69 (1960), and *Larsen v. General Motors Corp.*, 391 F.2d 495 (8th Cir. 1968), respectively. The bicycle has played a small rule in limiting the doctrine of “crashworthiness” which was applied against a car manufacturer for injuries to a motorcycle rider who collided with the car so that ornamentation on the wheel covers made the injuries more severe. A pedestrian case and later bicyclist case refused to extend this doctrine to collisions with stationary cars. See Note, “The Automobile Manufacturer’s Liability to Pedestrians for Exterior Design: New Dimensions in “Crashworthiness,” 71 *Mich. L. Rev.*, 1654, 1663, 166–69 (1973).
119. Perhaps the earliest such enactment occurred in 1880 when the aldermen of Brooklyn repealed their ban on bicycles and replaced it with the requirement that bicycles use lights at night. See Dunham *supra* note 18, at 273. In 1888, a British regulation required that a bell be sounded continuously while a bicycle was in motion. See Lay, *supra* note 33, at 143.
120. Smith, *supra* note 37, at 201. Dunham, *supra* note 18, at 473, notes that as late as 1899, Boston had no light requirement and a Connecticut law only required lights on rubber-tired vehicles because people could not hear their approach.
121. *Id.* at 200–01.
122. *Id.* at 201–02.
123. See e.g., *Des Moines v. Keller*, 57 L.R.A. 243 (Iowa S. Ct. 1902). In 1888, Great Britain passed a statute requiring bicyclists to use lights at night. See Bird, *supra* note 25, at 42.
124. *Cook v. Fogarty*, 39 L.R.A. 488 (Iowa S. Ct. 1897).
125. Smith, *supra* note 37, at 202.
126. *Moore v. District of Columbia*, 41 L.R.A. 208 (1898).
127. See Ralph Nader, *Unsafe at Any Speed* (1965) and the National Traffic and Motor Vehicle Safety Act of 1966, 15 U.S.C. sec. 1392 (1982).
128. See Federal Highway Administration, *National Bicycling and Walking Study: Case Study No. 13—A Synthesis of Existing Bicyclist and Pedestrian Related Laws and Enforcement Programs*, 30–31 (1993).

129. See Schwartz, *supra* note 10, at 48–55.
130. Most of this regulation became effective on May 11, 1976. Four subsections became effective on November 13, 1976. On June 1, 1977, a federal court remanded four provisions for reconsideration and those four provisions were subsequently deleted. 16 C.F.R. 1512 (1985).
131. U. S. Consumer Product Safety Commission, *Annual Report*, 22 (1982).
132. U.S. Consumer Product Safety Commission, *1990 Priority Project Recommendations*, section on FY 1990 Priority Projects—Conducting A Bicycle Injury and Exposure Survey (May 9, 1988), cited in, *Petition of the Consumer Federation of America et al., To Establish A Mandatory Safety Standard for Adult and Child Bicycle Helmets*, 7–8 (May 15, 1989) (\$2 million for each death, \$2.3 billion for emergency room treated injuries, and \$2.5 billion for other medically treated injuries).
133. President's Commission on Product Safety, *Final Report*, 18–20 (1970).
134. "Bicycles, Proposed Classification as Banned Hazardous Substance," 38, *Fed. Reg.*, 12300 (1973).
135. 38 *Fed. Reg.*, at 12300.
136. Bureau of Product Safety, *Staff Analysis Of Bicycle Accidents And Injuries* (March 24, 1972).
137. See 39 *Fed. Reg.* 26100 (1974), 40 *Fed. Reg.* 25480 (1975), and 40 *Fed. Reg.* 52815 (1975), respectively.
138. Gregory Rodgers, "Reducing Bicycle Accidents: A Re-evaluation of the Impacts of the CPSC Bicycle Standard and Helmet Use," 11 *J. Prod. Liab.* 307, 316 (1988).
139. J. Flora et al., *Extension of the Neiss Data Analysis Including Cpsc In-Depth Reports of Bicycle-associated Accidents*, 21 (1977).
140. J. Kaplan, *Characteristics Of The Regular Adult Bicycle User*, 51 (1975). See also, Virginia Department of Highways and Transportation, *Planning and Design of Bikeways*, (1974) (Bicycle defects were contributing factors in less than 3% of all bicycle/motor vehicle accidents) and a survey of children bicyclists between April and September 1983 in the Emergency Department of the Children's Hospital of Philadelphia found that they reported only 3% of all accidents occurred because of equipment failure. However, the bicycle was known to be in need of repair by the child or caretaker in 24% of the cases. Selbst et al., "Bicycle-Related Injuries," 141 *Am. J. Disease Children*, 140, 141 (1987).
141. J. Flora et al., *supra* note 139, at 21.
142. Kenneth Cross's study of bicycle/motor vehicle accidents found that brakes had the highest frequency of alleged contribution to bicycle/motor vehicle accidents. This problem was reported to be a contributory factor in 6% of the accidents studied. Kenneth Cross, *Bicycle Safety Education—Facts and Issues*, 36–7 (1978).
143. *Forester v. Consumer Product Safety Commission*, 559 F.2d 774 (D. C. Cir. 1977). The other parties who had filed for appeal of the CPSC's initial promulgation voluntarily dismissed their suits. 559 F.2d at 781.
144. 559 F.2d at 788.
145. 43 *Fed. Reg.* 60034 (1978).
146. See e.g., Cornell, Noll & Weingast, "Safety Regulation," in *Setting National Priorities: The Next Ten Years* 457, 493–4 (H. Owen & C. Schultze eds. 1977); W. Kip Viscusi, *Regulating Product Safety*, 552 (1983), and Stephen Breyer, *Regulation and Its Reform*, 115 (1982).
147. See Ross D. Petty, "The Consumer Product Safety Commission's Promulgation of a Bicycle Safety Standard," 10 *J. Prod. Liab.*, 25, 32–38 (1987).
148. See *Consumer Product Safety Act Amendments: Before the Subcomm. on Cons. Protect. and Fin. of the House Comm. on Interstate and Foreign Commerce*, 94th Cong. 1st Sess. (1975) (Statements of Jay Townley, Schwinn Bicycle Co. and John R. F. Baer, Bicycle Manufacturers Association of America).
149. Even CPSC Economist Rodgers finds no statistically significant relationship between the standard and the injury rate. Rodgers, *supra* note 138, at 315–16. A recent CPSC review of its rule and bicycling-related injuries, found relatively few injuries caused by mechanical problems other than poor maintenance that the rule could not address. See Gregory B. Rodgers, *Bicycle Use and Hazard Patterns in the United States and Options for Injury Reduction* (1993).
150. See Petty, *supra* note 11, at 107–08.
151. John Forester, *Bicycle Transportation*, 96 (1983).
152. See e.g., Walter K. Ezell, "Court Case Reveals Lighting Problems," *American Wheelmen*, 8 (Dec. 1979).
153. 3 *Consumer Prod. Safety Guide* (CCH) 46,671 (1984). In its recent review of its rule, the CPSC noted the

- nighttime fatality problem, but failed to relate it to its reflector problem and explicitly stated that reviewing the reflector standard was outside the scope of the study. See Rodgers, *supra* note 149.
154. National Highway Traffic Safety Administration, *Fatal Accident Reporting System*, Ch. 8, p. 12 (1987).
155. See Forester, *supra* note 47, at 368–9.
156. 1986 *Bicycle USA Almanac*, 28–9 (1986).
157. *Capuano v. Almart Stores, Inc.*, 1 *Prod. Liab. L. Rep.* 78 (PA Northhampton County Court of Common Pleas # C-3849, Aug. 1982). See also Courting Disaster, 35 *Bicycling*, 134 (March 1994). This holding is contrary to another court's decision prior to the promulgation of the CPSC standard. See *Poppell v. Waters*, 126 Ga. App. 385, 190 S.E. 2d 815 (1972) (The absence of a headlight is obvious so there is no duty to warn).
158. Smith, *supra* note 37, at 194.
159. Robert A. Silverman, *Law And Urban Growth: Civil Litigation in the Boston Trial Courts, 1880–1900*, 106 (1981).
160. Randolph E. Bergstrom, *Courting Danger: Injury and Law in New York City 1870–1910*, 43 (1989).
161. Friedman, *supra* note 3.
162. In modern times, the judicial system appears relatively unsympathetic toward bicyclists who ride in traffic and are injured by cars. A recent study by the Jury Verdict Research, Inc. found that 67% of car-injured motorcyclists recover an award through litigation, but only 45% of similarly situated bicyclists recover. See Nelson Pena, "Double Standard: Why Injured Cyclists Usually Lose in Court," *Bicycling*, 24 (Dec. 1991).