“Dangerous Instrumentality”: The Bystander as Subject in Automobility

Sarah S. Lochlann Jain
Stanford University

From our American experience regretfully we have to say that our industry is apt to be contaminated with adulteration and substitution.

—Xenophon Huddy, *The Law of the Automobiles*

The automobile embodies two great ironies of American culture. First, enveloped in a rhetoric of freedom, the automobile concentrates the most astonishing degree of hyper-regulation. For drivers, a shiny new car comes embedded in a sticky web of laws and fines—not to mention a series of material needs from parking spaces and gas to oil caps designed to fit a single make and model. Second, the technology of automobility has defined public space in virtually every U.S. community. Here, the term *irony* has not only contradiction but opposition built into its locution—freedom meets regulation and a potential for individuation rubs uneasily against an actualized homogeneity. These oppositions leave gaps, and the one this article focuses on specifically is the space that the bystander inhabits. The “bystander”—as pedestrian, cyclist, potential enjoyer of public places—cuts a curious figure, one that is defined in relation to automobility and, more specifically, through a vulnerability to injury by automobiles. Yet despite his or her material interpellation into hegemonic car culture, the bystander cannot hold automobile manufacturers responsible for design defects, even when these carry serious consequences for bystander injuries and chances of survival.

Bystanders are integral and random parts of the public environment: they have their own desires for spaces that may be at odds with the desire simply to traverse them. Furthermore, they are necessary complements to the urban environment—drivers are also bystanders, if only in the walk between the car and the Wal-Mart. What are we to make of this susceptibility to injury and the lack of recognition of this major, but potentially rectifiable, public health issue? The fatality statistics are perhaps all too familiar. In 1899, the first recorded U.S. automobile death took place in New York City when H. H. Bliss stepped out of a street trolley and into the path of an automobile while helping someone dismount. Within 25 years, automobiles were the leading cause of accidental

death and the leading cause of death overall for people under 42. Child deaths in auto accidents reached 1,000 in the city of New York alone before World War I (McShane 1994:176). Although mileage rates have dramatically increased, overall deaths remain high. In 2000, pedestrian and pedacycle deaths numbered 6,700, with 205,000 nonfatal injuries (National Safety Council 2000:76–77). Although bystander deaths are nothing new, the issue of bystanders and automobile design has been vastly understudied by engineers, regulators, and technology theorists.

Piecemeal research on the question of pedestrian injury and automobile design has taken place since the beginning. However, the institutionalization of this research hit a modest peak in the mid-1980s, and while front-end design standards to enhance pedestrian safety have recently been put into effect in Europe, research and policy remain moribund in the United States. Estimates have claimed that one car in 25 would, “before being retired from use, become involved in an injury-producing collision with a pedestrian” (Michigan Law Review 1973:1654). Nevertheless, many car designers still look askance at the issue of pedestrian safety. The “bystander question” has taken a particularly drastic turn with the rise of sport utility vehicles (SUVs), which have been openly marketed to protect their occupants at the expense of those in smaller cars. Moreover, the popularity of optional bullbars and spoilers, which add significant dangers to pedestrians for purely cosmetic reasons, compound the problem. Statistics bear out advertisers’ promises, as studies show that the prevalence of SUVs and other light trucks result in a significantly higher overall fleet fatality rate (Joksch 2000:49). The fact that rollover deaths and injuries have received so much more legal and popular attention than compatibility-based deaths and injuries (in which drivers of smaller cars are killed when hit with the maldistributed high-riding bulk of an SUV) makes evident the questions I raise here. How is it that bystander injury has so inconsistently and haphazardly entered the equations of automobility? How has automobility, in fact, produced the bystander as a legal entity? Why was driver negligence so tightly circumscribed in terms of legal (and social) responsibility at the same time as it was held to have such potent explanatory power in accident causation? The answers to these questions lie in the early consolidation of the car as object and commodity.

Product liability law, through which individuals assert a right not to be injured by the products they own and use, provides a remarkably germane site for examining these questions. Throughout the 20th century, this area of law has held a particularly critical place in the United States to a degree unmatched in any other country, and it remains a key infrastructure for negotiating the responsibilities that manufacturers should have in product design, given the ease with which human flesh is injured. Furthermore, the arena gives form, if only in a highly structured and artificial way, to deep-seated anxieties about the body, technology, consumption, agency, and injury. Product liability remained the only mode of design regulation for the automotive industry until the 1960s, when the establishment of the National Highway Transportation Safety Administration
(NHTSA) signaled a new common sense about the extent to which manufacturers should ensure that their products are crashworthy. These laws provide an important entry into questions currently being raised in the anthropology of technology that aim to interrogate how nonhumans can also be understood as cultural actors. Specifically, I examine how early legal categorizations of the automobile, based on inferences about the nature of technology and consolidated through powerful cultural and economic forces, led to particular configurations of acceptable injuries, normative behaviors, and common sense designs.

Through its many formulations, product liability theory premises that the law should act as a market corrective. In other words, a product should pay its own way; and if it injures too many people, the injury expenses allocated through the legal system will drive it off the market. For this reason, scholars such as Richard Abel and Laura Nader suggest that the law of tort poses a radical potential for social justice (Abel 1987:447; L. Nader 2002:203). However, as nine out of ten people who would have valid product liability claims do not sue, Abel and Nader both argue that the law cannot properly function in its role to publicize defective products and spread costs. For these scholars, underclaiming is the main reason for the failure of the law. However, my study of injury law has led me to conclude that the law fails in materializing injuries for reasons that are embedded within the structuring principles of the laws. I demonstrate that point here through a reading of the ways that courts understood the automobile in product liability suits and how they allocated the responsibility for injuries in ways that consistently favored the interests of drivers and manufacturers. This example from car culture demonstrates that the law in fact was unable to make visible the full spectrum of injuries wrought by automobiles, let alone to spread the costs of injuries. Thus, this argument leads not toward the corrective potential of the law but rather to the injuring potential of the market.

The pitfalls of assuming the validity and efficacy of the stated goals of the law are multiple. Its problematic case-law approach enables single judges to make far-reaching and value-laden precedent in a manner that Duncan Kennedy has dubbed “bad faith” (1997:4). Other issues lie with its gnarled intertwining of rationalist and moralist discourses and its assumptions that injuries can be narrowly traced to single products and incidents. Understanding injury law from the advocacy position obviates an analysis of the ways that the automobile as a technology was consolidated through law and structured in a constitutive relation to new risk subjectivities.

At the turn of the century, the courts, the popular press, and the government reverberated with the complexities of integrating the automobile into social and physical geographies. What counted as an automobile? What kind of tool was it and what did it have the potential to become? Who should pay—materially and culturally—for the spaces that this new mode of transport required? Should it be allowed on all public streets? Was the car inherently dangerous, in its design, or solely through its “reckless” use? What terms of responsibility should be defined in relation to this increasingly lethal technology? Though
these questions were central to the subsequent development of automobile culture, they were asked and answered only haphazardly, using inadequate precedent, to determine a framework that would delineate the kinds of responsibility presumed of drivers. Injury law was one in a series of government and private bureaucracies that included urban planners, journalists, and auto clubs, among others, that successfully encoded early on a *habitus* of automobility. From the first 15 years of the 20th century emerged not only a powerful new industry but a mode of common sense that to a great degree continues to guide automobility today. This common sense, I argue, was materially and semiotically encoded through such things as planning codes, standardized guardrail design, and asphalt specifications, all of which coincided with the kind of political space that the road would become; the vehicle choices that people could make; and the measurement of risk, inflected in terms of gender, class, race, and age, of a lived American geography. In this way, this study dovetails with recent work in the anthropology of technology by unpacking the ways in which designed objects come to assume the mantle of “dangerous” or “plain” objects and under what logics the attendant costs of these are attributed to human and nonhuman actors.

Cultural theorist Jeffrey Schnapp traces the antecedents of car culture through the transportation revolution of the 18th and 19th centuries, analyzing how new technologies “precipitated fundamental perceptual and psychic changes in human subjects and in the fantasies that governed their modes of interconnection with landscapes traversed and viewed” (1999:3). The attraction and materiality of speed provided the means for a new kinetic subjectivity that “ensures that the conjunction between human and mechanical individuals will engender not relaxation and tedium, but bigger living: quickened senses, aroused faculties, expanded powers of vision; acts of heroism, improvisation, and innovation” (1999:34). The links Schnapp draws between transit technologies and new subjectivities through his readings of literature, art, comics, engineering manuals, and other elements of popular culture are critical for understanding the irrational attraction to phenomena associated with the car, such as speed and crashes. The consolidation and expression of kinetic subjectivity also made available—indeed required—a series of others as its constitutive outside. Therefore, in addition to reconstituting the physical and infrastructural conditions for social life, the automobile, much more than the train, phaeton, or carriage, solidified new codes of behavior and new kinds of subjects that included drivers, negligent drivers, gear heads, bystanders, mothers, and children. Virtually every user of public space came to be defined in relation to the automobile, and in this context, the bystander emerges precisely as an immobilized subject without access to law or influence over decisions about technology design.

Although the regulatory and social aspects of the rise of the car have been well researched, the legal framework of automobility has not, as yet, received much attention. This may be due to the fact that legal decisions, early in the history of the automobile, relied on precedents set by cases involving horses,
bicycles, and even dynamite to determine rules for cars. Many of the resulting judicial opinions are contradictory, both internally as well as with each other, and they seem to have been made according to somewhat circuitous reasoning. Nevertheless, as one judge aptly stated in 1907, “With respect to the methods of travel and transportation on the highway . . . the law seeks to adapt itself to the new conditions arising from the progress of invention and discovery” Towle v. Morse, 68 A. 1044, 1046 (Maine 1907). The outcome of these cases ultimately determined that automobiles would be considered as fundamentally benign products that were harmful only when driven negligently, and by the second decade of the 20th century, safety bureaucrats concentrated their attention exclusively on driver education and traffic engineering (Albert 1998; Eastman 1984). A journey through these opinions lays bare the struggles involved: plaintiffs’ lawyers desperately tried to harness available legal categories to argue for their injured clients, as courts strained to negotiate these claims to fit their legal and common sense assumptions about commodities, industrial progress, ownership, responsibility, public space, technology, and gender.

I argue that during the early years of automobility, a public slaughter was taking place, and yet tort law failed to produce any systematic way of making manufacturers, drivers, and owners responsible for injuries to bystanders resulting from vehicle design. Despite the filing of a number of patents addressing safety issues, auto design remained virtually invisible as a legally rectifiable danger. A legal conundrum, evident in early automobile law but never resolved by any “activist” court, was that even without driver negligence, the car itself was a means for unprecedented death and injury. As legal scholar Robert Rabin put it: “The concept of ordinary objects posing special dangers just doesn’t cohere under a discrete label” (personal communication, May 15, 2002). In fact, how the car came to be recognized as an ordinary object is not at all self-evident.

Only by refusing to recognize the car as a complex technical system and set of agencies, was tort law able to normalize the car as an everyday object not subject to requirements for design or engineering improvements to prevent bystander injury. However, this attenuated understanding of the automobile resulted in opinions that were necessarily illogical and contradictory. In part, the structure of the laws themselves led to the dramatic simplification of a complex object. Through a series of claims in which “accidents” typically occurred at the nexus of incredibly complex social and material intersections, case law foreclosed the question of liability remarkably quickly. Thus the technology of the law itself guided an understanding of the car as a private conveyance and as a commodity choice that left out wider social concerns and structural patterns of injury.

This can be seen quite clearly through a comparison with other transit modes. Steamships and railways, for example, had come under congressional regulation because of safety concerns; and steam coaches had also been declared illegal for safety and economic reasons. However, these conveyances
were not understood by courts and regulators as precedents to the car, although, for no better reason, bicycles and horse-drawn carriages were. Using the technological and legal precedents of steamships and railways would have entailed the foregrounding of the automobile as a complex system involving roads, traffic lights, and gas stations, as well as bystanders. Technologies such as streetcars and railroads, with their specialized tracks, carriages, and hired personnel, as well as their institutional structures as companies with centralized corporations, tend still to be better recognized as comprehensive technical systems than do highways, parking meters, and Middle East politics. Furthermore, automobile drivers consisted of a wealthy elite with significant resources at their disposal—not the least of which were powerful industry lobbyists. Nevertheless, had courts determined that the steamship was an appropriate precedent for the automobile, the infrastructure of spreading injury costs might have been vastly different.

The obvious corollary of assuming that the car is an ordinary object was that accidents would be understood as the result of driver negligence. Perfect driving was assumed to be humanly possible and legally obligatory. But a new array of subject positions defined in relation to the car were instead developed to explain the enormous public health costs of automobility through the complicated linguistic feats of judges.

I proceed by examining two periods of legal history. The earlier of these is perhaps well exemplified by the decision made in the 1907 court case Lewis v. Amorous (3 Ga. App. 50), which was widely cited as precedent throughout the early 20th century and in which the plaintiff attempted to argue that owners were responsible for injuries resulting from their vehicles. The case dealt with a common phenomenon: child death by a negligent driver. Second, I look to a series of cases in the 1950s and 1960s that specifically addressed the issue of bystander injury and automobile design by considering cases in which children were injured in collisions with parked cars and their sharp edges. By this time, the automobile was a ubiquitous element of the American landscape. Still, these cases demonstrate the ways in which courts were simply unable to understand the automobile as anything other than a common, everyday object, and concepts such as speed, public space, or design innovation were incomprehensible. Through the first six decades of automobility, then, a genealogy of the bystander can be traced through the consolidation of the automobile in overlapping systems of design, space, liability, and social identity.

Viviana Zelizer argues that early in the 20th century “killing a child, even without deliberate intent, emerged as a singularly sacrilegious crime” (1985:49). Certainly, as she argues, the rhetorical valuation of the child took on a particularly potent political valence. The one major exception to this general trend was in automobility. As these liability cases demonstrate, children suffered enormously for the introduction of the automobile, and except in very rare cases, their killers were unpunished. Rather, their injuries were used by automobile associations, courts, and an emerging safety network to make moral claims on drivers, certainly, but even more, on mothers and children.
The institutional framework for distributing blame for child death by auto attributed these deaths not to criminality but, on the contrary, as the unintentional and avoidable effects of automobility. In this way the moral and physical costs of injury were distributed and absorbed unequally as these were materialized in product design.11

Lewis v. Amorous

On September 25, 1905, Branch Lewis Jr., a nine-year-old boy, was on his way to join a group of his friends skating on a road in Atlanta when he was struck and killed by an automobile. Percy Pybus, the 19-year-old driver, “negligently ran into the crowd of children without any warning of any sort” (Lewis v. Amorous, 52). Pybus was driving without a license in violation of a municipal ordinance, and the car he was driving was licensed to Clinton Amorous but was owned by Clinton’s father Martin Amorous. Clinton had lent Pybus the car, and John Toole and Edward Inman were the owners of the garage where it was kept. Mrs. Rosa Lewis brought suit against Martin Amorous, John Toole, and Edward Inman, claiming negligent homicide (what would now be called wrongful death) for the death of her son.

All parties agreed that Pybus had been negligent, but the legal question was who should be responsible for damages. Defendants argued that responsibility belonged entirely with the driver, who had been criminally charged prior to Lewis’s civil charges. In any case, they argued, Lewis had no “cause of action,” (that is to say, no legal hook for bringing the suit) and therefore no claim to the $20,000 she claimed as compensation.12

The plaintiff’s key argument was that the “automobile was intended to be run in the public streets of the city of Atlanta. It was a machine which was dangerous and unsafe to entrust to anyone, unless that person possessed of age and experience which it takes to operate the same” (Lewis Petition, 5). The automobile was “a large and heavy machine, capable of going at a great rate of speed;” it was “complicated and difficult in its management and construction;” and it was “intended to be run on public streets” (Lewis Petition, 7). Furthermore, it should be considered dangerous to allow anyone to drive a vehicle unless that person were “not only capable of understanding its mechanical appliances, but also possessed of age and experience which it takes to operate the same” (Lewis Petition, 7). Pybus was an inexperienced youth who was incapable of understanding the machine, and this alone should have been enough to require the owner and caretakers of the vehicle not to allow him to drive it. “To permit such a machine to be run by [Pybus] was negligence on the part of defendants” (Lewis Petition, 5). Since they did let him drive it, they should pay damages as compensation for the loss of economic contributions he made to his mother. “Petitioner was dependent upon him” (Lewis Petition, 2).

This argument would appear to have merit. The plaintiff argued that negligence needs to be understood in relation to complex machinery, public spaces, and differently skilled drivers. However, when put into the terms that were available to categorize technologies in the early 20th century, the argument
loses its elegance in its presenting a conundrum of law rather than a claim for justice. It hinged on two key legal theories, both of which had been developed prior to the arrival of the automobile but that had to be used as precedent to situate the automobile as something more than just an everyday commodity for private use.

The first, using a theory of agency, argued that Pybus was an “agent” of the defendants by way of Clinton Amorous’s permission to use the machine. The second argument insisted that the automobile should be considered a “dangerous instrumentality;” it should be classed with other dangerous things, such as dynamite and ferocious animals, and therefore it should carry a heightened duty of care and make owners liable for all injuries regardless of whether these could have been anticipated or whether they were due to negligence. In legal terms, this would make an owner “strictly liable.” It is worth stating up front that the difficulty in reading these doctrines in substantive legal detail lies in the scattered ways in which they were developed and used in the first three decades of the 20th century. But here lies their interest as well, for, as I argue, no clear legal principles emerged for understanding potentially dangerous everyday objects.

The Law of Agency

The fact that garage owners could so easily allow cars out of the garage with a wink and a nudge, combined with the car’s attraction and easy redirection to personal ends, created complicated liability issues for car owners. Principles based in common law, such as the “family purpose doctrine,” “master–servant doctrine,” and the “ordinary principle of agency” had broadened the scope of liability to a car (or carriage) owner when an “agent” such as a family member or a chauffeur was either under the direction of the owner, or was engaged in the owner’s business. These agency clauses, which had, by 1907, been in place for at least two centuries, limited employer and owner liability by holding them liable only for “torts they had actually commanded” (Franklin and Rabin 1992:27). Nevertheless, early on, car owners actively lobbied to further decrease their own liability for chauffeurs, family members, and other users of their property (Borg 1999:797).

Rosa Lewis’s attempt to assert the agency theory was met with the court’s statement that “there was no inference that the act was in the scope of employment” (Lewis v. Amorous, 9). Not suprisingly, the court was unwilling to expand the terms of agency to fit the facts of the case. Nevertheless, despite its out-of-hand dismissal of the claim, the court divulged the arbitrary nature of this doctrine in an example meant to clarify. When a person, while crossing the street, is struck and injured by an automobile driven by a chauffeur driving in the scope of his employment, plaintiff may have a claim against a car owner. If, however, “it appears that at the time in question the chauffeur . . . was using the automobile for his own pleasure” (Lewis v. Amorous, 9), then an injured party has no civil recourse. This latter case, in which a chauffeur strays slightly from his duty and injures someone, appears repeatedly in early auto litigation. In-
deed, one wonders if pressure may have been exerted on “servants” to say that they had not been strictly following orders when an accident occurred. Nevertheless, the negligence of the driver, rather than the responsibility of the owner, held the day in court.

The driver negligence argument makes utter sense in the context of contracts: a master cannot maintain control over, or responsibility for, a servant when the servant is not under contractual obligation. The line of reasoning traces the terms of negligence back to common law disagreements over carriage collisions, which even then were, as tort scholar Gary Schwartz argues, “ambivalent and confused” (Schwartz 1981). But the court did not consider the specific materiality of automobile technology, and it could not take into account dangers that quite simply had not existed with buggies and carriages. In fact, courts had at least three other lines of reasoning open to them. First, they could have decided that the use of the automobile itself implied a contract: as long as the servant (or family member or other borrower) was using the automobile, it would be assumed to be in the agency of the owner, regardless of actual purpose. This might be considered as a sort of adult version of the attractive nuisance theory. Second, courts might have employed a standard of negligence in an owner’s decision about who could drive the car: it would be considered one thing (responsible) to lend a car to a licensed and practiced chauffeur and another (negligent) to allow an unlicensed young boy to take it out. This would have fit within the contemporary standards of negligence, which in torts was defined as: “The failure to observe, for the protection of the interests of another person, that degree of care, precaution and vigilance which the circumstances justly demand, whereby such other person suffers injury” (Berry 1909:139). A third line of reasoning would find precedent in technologies such as steamships, which had been regulated by Congress as early as 1837 (Mashaw and Harfst 1990:34). Courts held in 1824 that steamboats introduced such additional danger that they would be subject to full liability. The legal reasoning here was simply that the industry depended on the public’s confidence in safety, so liability “would support, rather than obstruct, the expansion of that industry” (Schwartz 1989:648).

The result of strict adherence to the agency precedent was that bystanders were effaced from the civil law equation and they could only bring suit under a very narrow set of circumstances. While a chauffeur, family member, or friend was in the rare case charged criminally for injuring or killing someone, the bystander victim was left without civil retribution—not only without the deep pocket implied by car ownership but often without any pocket at all. In this case a 19-year-old youth was criminally charged with murder.

Although these doctrines were and remained well established, it is worthwhile to quote a 1931 dissenting opinion from a similar case, in which a car loaned to a family friend injured a bystander. Dissenting not only from the court but from virtually all precedent on this issue, the judge writes:
In the hands of a careless or inexperienced person, an automobile is nothing short of a public menace. . . . Public policy . . . demands that owners of automobiles be held to strict accountability for any negligence resulting in injury to others. . . . Innocent third parties should not be permitted to suffer injury because of the willfulness of a member of a family. It is all very well to suggest that the injured party would have recourse against the person permitted by the member of the family to drive the car, but it is common knowledge that in many instances such a person is financially irresponsible. [Turoff v. Burch, 50 F.2d 986, 989 (D.C. 1931)]

This dissent implies that the law could have been read differently. But that it could have been otherwise does not imply that the legal decision was arbitrary, as becomes clear with the court’s pronouncements about the concept of dangerous instrumentality.

**Dangerous Instrumentality**

As “dangerous instrumentalities,” autos should fall into a category of objects delineated in law that included such things as ferocious animals, guns, and dynamite, argued Lewis. This category of goods required a higher standard of care, regardless of intent or negligence by an owner who would be held responsible for all injuries resulting from the use of these objects. In legal parlance, an owner would be “strictly liable” for injuries. In strict liability, negligence did not need to be shown; an owner was responsible for damage even if it was wrought by a borrower or even a thief, and the owner of a dangerous instrumentality had a special obligation to keep it with care.

The legal reference book, *Prosser and Keeton on Torts*, notes that the dangerous instrumentality doctrine has to do with the extraordinary (those objects that have an “element of the unusual, excessive and bizarre”), for example: “Fire in a fireplace or in an authorized railway engine is a normal thing, and so is a steam boiler on a ship; but fire in an unlicensed locomotive or in a steam engine traveling on the highway and shooting out sparks is not normal, and is a proper matter for strict liability” (Keeton et al. 1984:547). But becoming normal is a process that takes all kinds of work—including the category work of legal forums. The Lewis opinion demonstrates how codes of behavior can be encoded in the boundary between plain object and (negligent) driver. Moreover, the social context of this case further demonstrates the alliance that determined what injuries and causative factors became visible in car culture.

In dismissing the dangerous instrumentality claim, the Lewis court adheres to a driver negligence paradigm. The court writes,

It is not the ferocity of automobiles that is to be feared, but the ferocity of those who drive them. Until human agency intervenes, they are usually harmless. While by reason of rate of pay allotted to judges in this State, few, if any, of them have ever owned one of these machines, yet some of them have occasionally ridden in them, thereby acquiring some knowledge of them; and we have, therefore, found out that there are times when these machines not only lack ferocity, but assume such an indisposition to go that it taxes the limits of human ingenuity to make them
move at all. They are not to be classed with bad dogs, vicious bulls, evil-disposed mules, and the like. [Lewis v. Amorous, 11–12]15

One notes several strange turns that pock-mark this text. First, in comparison to the rich descriptions of heavy and complicated machinery that appear in Lewis’s complaint, the judge claims that knowledge about automobiles is acquired in one way: by riding in them. This fact seems to command a further kinetic envy on the part of the judge, one based in a class desire allied with the interests of drivers rather than bystanders. Second, the qualifier “usually harmless” is used to dismiss Lewis’s claim rather than to take it seriously. Third, the court’s reasoning readily admits that the car is not simply an extension of human will, but it has its own recalcitrant disposition.16 The court ultimately states that while the car is a simple object when bystanders are injured, its real character causes frustration to drivers. In claiming that the car is an extreme version of a common sense object, the court in fact shows the opposite.

Animals are bad, vicious, or evil-disposed not by any natural proclivity, but because they do harm to humans in some way and thus are imputed with these traits. A cogent legal framing of intent cannot be ascribed to these animals, and as such, the set of adjectives works rhetorically to pull the strings of a common sense that runs as follows: First, animals are often used in the service of humans and live among human communities. They bite and buck and act in ways that often cannot be controlled by humans. They hurt people and as such can be described as vicious and bad. Second, horseless carriages (automobiles) are also used in the service of humans and populate human communities. As servant to the driver’s will, automobiles have a set of controls, with a cause and effect relation to its operation. Autos can be “indisposed,” but they cannot in themselves be evil, since they merely extend a driver’s will. If they do not have intentions, it would not be fair to impute intent or negligence to their nature, or to their owners for the simple fact of owning them. Third, when an accident occurs, it must be because humans, as drivers or pedestrians, misbehaved.

The promise of a technology that would act entirely as a human prosthetic was crucial in consolidating a rational underpinning to a hegemonic kinematic social fantasy.17 But the slippage between willful being and inert machine is caught in early “how to drive” manuals, warning prospective drivers that autos did not always behave precisely as they were told, as well as in more recent advertisements that continually reiterate the promises of power and competence of the machines.

In 1907, Lewis would have been iconic of several debates about the nature of automobiles and the problem of responsibility in relation to them. Gathered around Mrs. Lewis were debates about a mother’s role in auto safety, increasing concern about child injuries and deaths, the frustrations of road users over automobiles, and early technical thinking about bystander dangers. Around Mr. Amorous (and ultimately the court), a bundle of interests included those of class and wealth, fantasies about speed, and concepts of liberal individualism.
L. C. Noble 1909 patent of scooping fender design.

Figure 1
Even by 1907, the interests of Amorous had garnered significant power and rhetorical force, but both claims gave voice to a number of the concerns of the day that were being widely debated.

A key aspect of Lewis was that the victim’s mother was bringing the suit. Mothers had a defined social role in the growth of automobility. Despite their active exclusion from automobiling, women’s active charge lay, as early as 1903, in keeping their children out of what had been their play areas to keep the roads clear for automobiles. Safety crusaders laid the fault squarely on mothers for these violent and public accidental deaths that, in fact, accounted for one-half of the auto deaths in the first quarter of the 20th century (McShane 1994). One version of this common refrain claimed that: “Mothers with their unique perseverance in the face of the tiresome repetitions necessary in the instruction of children should exercise a decided influence on those 80 percent of child casualties who are picked off when running or walking across or in the streets” (Commonweal 1931:397–398). In a rare rebuttal to this position, a 1908 letter complained about the “cruel prominence” given in the Living Age to an article that “puts the blame for accidents to children and mothers.” The writer of the letter wrote: “How a poor woman is to keep her family within doors all day long, or how she is to provide for their constant supervision outside, the writer does not explain” (Letter to the Editor 1908:250). Ten years later, traffic safety lessons were mandated in schools; school patrols were initiated; and a few school yards appeared as alternative play areas. These, combined with the criminalization of many of the children’s street games, helped to homogenize the road for what was seen as their improved purpose: transit. Thus at the time of Lewis v. Amorous, the popular press was militating against the interests of the woman who was bringing suit. Mothers came under severe moral scrutiny for “misusing” the common spaces that previously had been available for heterogeneous uses.

Although courts appeared oblivious to issues of bystander safety, popular literature contained many ideas for making vehicles safer for those who had no control over how they were driven. In 1908, L. C. Noble registered a patent for a car fender (See Figure 1) that would “make the fender more reliable in operation by providing a scoop which is automatically lowered if the main fender fails to pick up the person or object it encounters” (United States Patent Office 1909:1). Substantial improvements by other inventors suggest that pedestrian injuries and deaths were understood, at least in part, as a technical problem. Another suggestion appeared in a 1921 Scientific American article entitled “Incursive Somnipathy.” The author claimed, “Yet, as fanciful as it may sound, I believe it is within the scope of Edison to harness the pulse, or register the variant blood pressure, [and] as soon as sleep takes possession of the body, to sound a waking alarm to the driver” (Skinner 1921:167). These examples show that early on, individual inventors as well as the public were thinking about the possibilities for improving vehicle safety through design, and yet neither capitalism nor law provided the impetus for consumers or manufacturers to consider issues regarding bystander safety in the calculus of consumer choice.
By virtue of their ready absorbance into consumer culture (given the extraordinary willingness of governments to provide infrastructure), automobiles fit well into a political rhetoric of liberal individualism that has successfully situated the car as an icon of American liberty. In consolidating this notion, courts relied heavily on huge automobile law books that began to appear in the early century, such as Xenophon Huddy’s pro-auto tome, *The Law of the Automobiles*, first appearing in 1906 but already being cited in law by 1907. In fact, courts quoted it so widely that the mere writing of this text, which posed itself as a simple collection of law but presents a clear agenda, became, in fact, an illocutionary act. Writing “law” made it so, despite the fact that precedent, in railway and steamship law for example, pointed in quite another direction. 22 Huddy claimed that all road users had “equal rights” (1927:40–41). 23 While he meant by this to integrate autos into road traffic, he also noted that the car in itself granted no superior rights by virtue of its size and speed. But as the contemporary popular press noted, this legal claim was virtually meaningless in practice, since as the street evolved into a homogenous space, it was resonant enough with the potential of speed to keep other users off it, at least in urban spaces. 24 As decried by a letter to the editor entitled “Lost Liberty of the Road,” the “horse vehicle, the cyclist, and the pedestrian are almost driven off some of the main roads, which as ratepayers they have still to maintain... A large number of motorists continue to treat the roads as the exclusive property of the fastest vehicle” (Letter to the Editor 1908:249). 25 This observation, made in 1908, recognized something new about the consumption of space that came later to be considered “common sense physics;” that is, the bigger the vehicle, the more likely it is to cause injury and keep its own occupant safe. 26 The automobile created and consumed a new kind of space by virtue of its technical ability to reach unheard-of speeds and the social and legal inability to articulate the specific dangers that it posed. This way of using of space was not well captured in rights discourses, but the interests at work in maintaining those legal terms can be seen in early statements of tort law that attributed contributory negligence to injured parties who did not exercise adequate care in relation to the danger of automobiles. The irony of contributory negligence is precisely that it recognized the inherent danger of automobiles by virtue of the injury while simultaneously claiming that this inherent danger legally required respect on the part of bystanders.

It is evident that the judge in the *Lewis* case considered the automobile not from the perspective of a pedestrian but from the position of admirer—as a potential owner and as even a frustrated driver. The difficulty in controlling the vehicle and its “indisposition” potentially stultified the fantasy of speed that the automobile offered of the living kinetic subject. The fantasy about what the automobile could embody played a key role in how it was regulated, and this fantasy almost certainly appealed to a class of actors who were in positions of authority. 27 Furthermore, the allure of the automobile became a powerful force in disciplining the possibilities for human action in relation to networks of technologies (roads, suburbs, car payments, and Buicks), while also producing
new subject positions attached to car-coded behavioral requirements (drivers, drive-in waitresses, and pedestrians).

Within this context, then, the concept of dangerous instrumentality had great potential for supporting the claims of the injured and therefore threatened those with powerful interests in normalizing automobility. However, as a legal concept, it remained unarticulated and confused even into the mid-20th century, leaving those with concerns about the dangers of the automobile with no clear legal way to express them. The law settled early on that: “The automobile, dangerous and fatal to thousands as it undoubtedly is, is today a usual, customary phenomenon on the street, for which there is no strict liability” (Keeton et al. 1984:547). Strict liability in car ownership could have had consequential results and might have taken several forms that are simply illegible in today’s product liability law. One of these might have been that drivers as consumers bear responsibility to injured parties for choosing the design of their vehicles, especially those designs that were demonstrably more dangerous to other drivers and bystanders. Strict liability would have pushed the issue of exterior design as part of manufacturer responsibility, just as later happened with second collisions (when the occupant crashes into the car’s interior), and it would have addressed the issue of dangerous after-market additions, such as bull-bars and the sharp-edged spoilers that are still unregulated.

Civil law thus posed many roadblocks to injured bystanders. To bring suit at all, they often had to depend on whatever witnesses would come forward, since an injured person would be unable to identify them at the time of the accident. Police were ill-trained in accident reporting, and accident reconstruction did not become a professional field until much later. Even today systems for accident reporting are poor. Additionally, powerful lobby groups worked in the interests of automobile owners and manufacturers and bystanders were their nemeses. In his history of the automobile, Clay McShane suggests that even the term jaywalk, which had appeared by 1910, derived from jay, meaning “hick” or “rube,” with all its rural implications (McShane 1994:188). The burden of proof remained with the bystander, who had no claims to speak of on the manufacturer, particularly in terms of design.

Dangerous instrumentality is a term that covers abnormalities (a steam engine on a highway), or things that are dangerous by nature (a revolver or a vicious animal). But “by nature” is merely a stand-in for how humans apportion characteristics, intent, and reason. Ultimately, this chain of logic deletes the social environment from the technology of the car and inscribes it all onto humans. All of the messy complications of accidental meetings, defective designs, and chaotic spaces become reduced to the body of the negligent driver, mother, or walker.

Thus, automobile manufacturers remained free from the expensive forms of regulation that had plagued streetcars, railroads, steam carriages, and steamships. Still, in 1916, manufacturers were held responsible for defective design and made accountable to consumers for the proper running of their machines. The landmark case MacPherson v. Buick Motor Co. (111 N.E. 1050 [New
York 1916]) demonstrates the way in which the automobile was further consolidated as an ordinary product (and not as a dangerous instrumentality) when the court established a chain of responsibility between buyer and manufacturer for defective design. This strengthened the level of responsibility between buyer and manufacturer, ushering in a new ethics and a role for product liability law, and allowing injured buyers access to a deep pocket. Judge Cardozo wrote in his famous opinion, “Dangerous things are no longer restricted to those whose normal function it is to injure or destroy. If the nature of a thing is such that it is reasonably certain to place life and limb in peril when negligently made, it is then a thing of danger. . . . The manufacturer of this thing of danger is under a duty to make it carefully” (MacPherson v. Buick, 1053).

The concept of negligence was therefore broadened to include design defects. For example, in a case pivotal to the development of injury law, a plaintiff’s spokes crumbled while being driven at 50 miles per hour (MacPherson v. Buick, 1053). Nevertheless, as the legal theorists Jerry Mashaw and David Harfst (1990:45) point out, the case demonstrates that, even in its legal foresight, the court was unwilling to consider automobiles anything other than a mass-produced consumable and therefore did not press the issue of technical innovation. Thus, the concept of defective design remained extremely narrow, and in fact, it maintained the terms set out by automobile manufacturers. This was problematic for several reasons. Safety was not a part of the manufacturers’ agenda, overall product engineering overwhelmingly deferred to styling interests; and there was no oversight for engineering or design issues that took into account the wider social interests regarding public space. As we see in MacPherson, because the automobile was not classed as being in itself dangerous—although danger could be a side-effect of its use—the manufacturer would be left to regulate its construction.

The legal interpretations of automobile design coming out of the early 20th century were culturally specific to the United States and were based in a common law ill-suited to regulate the everydayness and potential danger of a product such as the automobile. In Britain, owners were responsible for the way their cars were driven, regardless of their relationship to the driver. But even if keeping costs down for drivers and promoting automobiles was a perceived goal for the judiciary, drivers and owners might have been held strictly liable (without fault) for all injuries. Detailed schemes were worked out that would spread injury costs in a system similar to workers’ compensation (Marx 1956).

Lewis and MacPherson, when read together, give a clear view of what I will call the “chains of responsibility” emanating from the legal consolidation of the automobile. The bystander had no civil claim on a nondriving owner or manufacturer. A driver or owner had a claim against a manufacturer but only when the design specifications laid out by the manufacturer were not fulfilled (or later, if they did not meet NHTSA’s standards). Thus, as safety activists have long pointed out, braking distance (a safety matter) never mattered to the extent that acceleration (a marketing concern) did. The way in which a “design
defect’ came to be defined, then, did not refer to a standard imposed upon the technology of the automobile but rather individual parts that did not work in accordance with manufacturer claims. Although the chain of responsibility between manufacturers and drivers was ultimately expanded in law of the 1960s to include the foreseeability of crash injuries, it has not yet been expanded to include pedestrians or other drivers who are injured by foreseeable design flaws in vehicles. I turn now to several suits in the 1950s and 1960s that again considered the question of children playing in public streets, but in these cases, they were injured by stationary vehicles.

1950s: Invisible Design

By the 1950s, a significant amount of research had been done on aerospace and automobile design by Colonel John Paul Stapp and others who focused on the ways that potentially slight crash injuries became lethal because...
of the plethora of ornamental protuberances in and on motor vehicles. Research on decelerative force demonstrated not only that people were dying in accidents that subjected them to forces of 15 feet or less (when humans can survive impacts that are much higher), but that cars throughout the postwar decades were becoming more dangerous.

Simultaneously, in the 1950s, automobile designers, such as Virgil Exner and General Motors’ inimitable Hollywood-born Harley Earl, celebrated American supremacy and democracy with chrome and flash, heightening tail fins designed by Earl’s design team after a visit to see a P-38 fighter jet. Everyone seemed to want to “own the road,” and an increasingly oligarchic industry helped and encouraged them do it (in the American auto industry, size has always translated into profit). The typical advertisement for a 1957 “Swept Wing” Dodge (see Figure 2) offers a dizzying array of color, fashion, fun, and speed with its new-fangled “Autodynamics,” providing both a means to meet with friends and a ready topic of conversation.

But tail fins and other superchromed style features provided unique bystander problems: they protruded significantly beyond the body of the vehicle; they were pointed, sharp and they were placed at the eye-level of other users of neighborhood streets, most notably children (see cover photo). The two precedent-setting cases in which children were injured by automobile protuberances were Hatch v. Ford (1958) and Kahn v. Chrysler (1963). Both of these cases dealt with parked cars, so the variable of the driver was removed from the equation. Thus, the issue of foreseeable design and the expectations of cars as public objects remained open to legal scrutiny.

In Hatch, six-year-old Charles Hatch was walking along a road with no sidewalks when he collided with a parked car that had a nine-inch protruding radiator ornament. His eye was pierced by the decoration and he lost the eye. In Kahn, seven-year-old David Kahn rode his bicycle into the rear of a 1957 “Dodge vehicle” and suffered a substantial injury when his right temple struck the left rear fin. Both plaintiffs claimed that manufacturers had designed the cars defectively, and the injuries these boys suffered were foreseeable. Both of the courts ruled for the manufacturer-defendants. A close reading of these cases reveals the ways that children’s actions and injuries continued to be dismissed in legal thinking about automobile design. Indeed, the haphazard way in which these opinions are written—often defying logic within their arguments and even misstating the purpose of product liability law itself—shows the troubled (though influential) thinking on the attribution of agency and danger.

Hatch presented two main causes of action, the first attempting to use a design defect doctrine and the second relying on a statute of the California Vehicle Code. Under the first, plaintiff argued that the young Hatch “was a person whom the defendant might reasonably expect to be in the vicinity of the vehicle and its probable use,” and the design posed an unreasonable risk to a person coming in contact with the front of the vehicle. Plaintiff argued that since the defendant refused to exercise reasonable care in vehicle design, it should be held liable for plaintiff’s injuries. The statute referred to in the second cause of
action provides that no person shall sell or operate any motor vehicle “which is equipped with a . . . radiator ornament . . . which extends or protrudes to the front of the face of the radiator grill” (Hatch v. Ford, 608). Plaintiff contended that violation of that statute “constitutes negligence as a matter of law and . . . but for . . . violation of the statute plaintiff would not have suffered the loss of his eye” (Hatch v. Ford, 606).

Against the first cause of action, framed by the court as a question of what duty the manufacturer owed the plaintiff, the court leveled three main arguments. The first raised a difficulty structural to any plaintiff who wants to raise a new issue: lack of precedent. “Counsel for the plaintiff have not cited us to any authorities which uphold their contention that the defendant owed any such duty and our own research has not disclosed any” (Hatch v. Ford, 607). Hatch had cited cases in which vehicles had been overloaded or had overhanging loads on highways. Although the overhanging loads provided similar geometric analogies, fault in those cases was traced to the owner’s negligence in the use of a vehicle rather than a manufacturer design defect, and so the cases, in this sense, were not parallel. Even more difficult, though, was the way in which Hatch was trying to create precedent by extending the duty of a manufacturer to include uses beyond those for which the product was intended (beyond driving) to include the foreseeable results of placing a product when not in actual use in the public domain. In response to this claim, the court held:

The vehicle in question here, in the condition in which it was by the complaint alleged to be, was safe to park and could cause no harm except to one whose own acts or the acts of some third person caused him to collide with it. Such a risk is not one which the defendant was required to anticipate or to protect against. [Hatch v. Ford, 607]

Again, as with the court’s decision in Lewis v. Amorous, one can see how certain terms used in legitimating a decision already use the concluding logic. The question “safe for whom?” is foreclosed, as are other pivotal questions such as how the design of public objects shape options for inhabiting common space and apportioning risk accordingly.

The court’s third response to Hatch is actually to bow out of its role in technology design. In a statement incongruous with the theory and doctrine of product liability law, the explicit purpose of which is to judge the appropriateness of product design in light of human injury, the court states that if the plaintiff’s claim were validated, “in effect the triers of the facts would be the arbiters of the design of automobiles and the standard of design would be determined not when the automobile was manufactured but after the occurrence of an accident” (Hatch v. Ford, 607). Indeed, if this were the judge’s opinion, it could stand alone, with no other reasoning, to dismiss the case, since it disavows the very purpose of the court.

The court’s reasoning against Hatch’s second cause of action, the State’s statute against protruding ornamentation, is also worth considering. The court reasons that a “violation of the statute does not create liability on the part of the
person violating it except toward persons whom the statute was designed to protect" (*Hatch v. Ford*, 607). Even more circuitously, the court deduces that the statute covers sellers and operators of vehicles, but since the car was not being operated at the time of the injury, the statute was not violated.

The claim in David Kahn’s Texas case is similar to the first cause of action in *Hatch*, and the court relies heavily on *Hatch* in dismissing it. Kahn’s main complaint was:

His injuries were proximately caused by the negligence of the defendant, Chrysler Corporation, in creating and designing the vehicle in ‘such a manner that the fins of said vehicle were elongated and protruded past the remainder of the vehicle and made of sharp metal capable of cutting.’ It is further alleged that the defendant knew, or reasonably should have known, that the fins of the 1957 vehicle would be capable of causing such injuries as those which occurred to the minor plaintiff. ([*Kahn v. Chrysler*, 677–678]

In this case, there was no dispute over what occurred, but over the event’s legal significance. Again the line of precedent maintaining that automobile design was a priori a nonlegal issue virtually ruled out the issues in this case. The court cited reasoning from *Hatch* to conclude that the duty of care of a manufacturer would end with the normal use of an automobile, where normal use would be limited to driving. The manufacturer has “no obligation to so design his automobile that it will be safe for a child to ride his bicycle into it while the car is parked” (*Kahn v. Chrysler*, 679).

Two crucial points emerge from these cases. First, neither *Hatch* nor *Kahn* considered automobiles as objects that inhabit public space even when parked. The car as a designed public object fell out the legal equation. My point here is that if one considers the street a public domain of play (particularly for children who as nondrivers may not be able to get to a park), transit of all kinds, and storage, then the existence of such designs as tail fins and other protruding parts seems obviously dangerous. How did they become so unilaterally celebrated?39 I am suggesting that this utter invisibility of bystanders in the legal framework of automobility results, in part, from a history of law that has been unable to categorize the ordinary damages of this technology because of the radical ways in which the characteristics of the car differed from earlier technologies. Individual behaviors were used by courts as an explanation and justification for the rational assumptions about the everydayness of cars and people’s bodies absorbed the costs of these logics. For example, in 1974, the design of a glass headlight on a Volkswagen came under scrutiny when a child riding a bike had his knee tendons severed when he crashed into a parked car. In the court’s dismissal of the case, it cited *Hatch* and *Kahn*. But rather than considering the state of technology and whether or not it would be possible to make a stronger or plastic light fixture (as they now use), the court concluded that the “proper test is whether . . . an ordinarily prudent person, acting as a manufacturer, would pursue a different available design which would substantially lessen the probability of harm” (*Nacci v. Volkswagen of America, Inc.*, 80 CULTURAL ANTHROPOLOGY
325 A.2d 617, 620 [Delaware1974]). But the “ordinary prudent person” by definition excludes people such as children, who would not be in the position of the manufacturer. By individuating the personal and financial costs of injuries, courts colluded in holding the possibility that automobiles could exist accident-free.

Second, these cases raise issues of design and the distribution of negligence. Clearly the courts in these instances did not have the analytical wherewithal to think about the distribution of fault for injuries among human and nonhuman actors, or among designers, drivers, and other users of space. They used a specific form of reasoning that counted a car as “an inert object lawfully standing unattended upon a highway” (Hatch v. Ford, 608), where each of the terms, inert, object, and lawfully, co-constitutes, as it describes, the others in such a way that design issues were made virtually illegible. The reasoning had several forms that mark the legal landscape of automobiles until 1968, but they all are based on the premise that if a car is used properly in the manner and for the purpose it was intended, any given accident would not have happened. This formulation can and has protected manufactures from many mightily egregious design flaws.

These cases could have had a different outcome if “operation on the highway” had been held to include parking in public places (say, as a foreseeable consequence of operation), if the purpose of the California statute had been understood to reduce overall injuries, or if the court had avowed its role in judging the efficacy of design and holding manufacturers to a reasonable standard. There was ample precedent in legal theory for so holding. A contemporary legal reference book, Harper and James’s Law of Torts, asserted: “If anything, bystanders should be entitled to greater protection than the consumer or user where injury to bystanders from the defect is reasonably foreseeable” (1956:76). If the courts had had access to ways of thinking about automotive technology and design that did not fall immediately to driver or bystander negligence, they might have held bystander injury as crucial in a judgment of the success or failure of a technology.

The regulatory revolution of the 1960s drastically changed understandings of automobile design. The paradigm shift arguably swung too far the other way, instigating, for example, airbags and other passive restraints on the assumption that seat belt behavior or regulation could not be adequately changed. Still, many contemporary cases could be used to illustrate the genealogy of the entrenched invisibility of car design and bystander injury. One might consider, for example, recent publicity around Lizzie Grubman, a New York socialite who reversed (by intent or pedal confusion) into a crowd at a New York bar (Smith 2002: 3A). Grubman had borrowed her father’s Mercedes SUV that evening, and there can be no doubt that the exterior design of that vehicle had everything to do with the number of people injured. But the vehicle was cited only as a symbol of her wealth in the popular press. One might also consider the death of Hazel Poloski, who was recently killed in a Wal-Mart parking lot when the driver of a Suburban, looking for a parking
spot, failed to see Poloski exit the store and cross the street. Surely the design of the SUV, which was not at issue in the litigation, had as much to do with her death as the parking lot, which the court found to be negligently designed (Poloski v. Wal-Mart Stores, Inc., 68 S.W.3d 445 [Missouri 2001]). For an earlier case, one might consider the 1961 case, Duvigneaud v. Jenkins (241 Miss. 179). Plaintiff was struck and injured by a tail fin when the driver reversed into him on the sidewalk, but the question of automobile design was not raised at all. Nevertheless, it is clear from the facts that the plaintiff was injured not only because the defendant reversed without properly looking behind him, but also because the long back end of car and the protruding fins meant that the car injured a pedestrian even while the car’s back wheels did not skip the curb.

**Conclusion**

It would be tempting to dismiss the legal opinions outlined in this article simply as examples of bad writing and evil-disposed logic. However, not only have they been influential as precedent, but they have encoded, as they exemplify, a way of thinking about the technology of the automobile. This logic has consolidated certain subjects as by-products of car culture’s apotheosis of kinematic subjectivity: the bad mother, the clumsy child, and the negligent driver. These positions undergird the criminalization and hyperregulation enabling the cultural and economic hegemony of the car in their serving as explanatory models for death and injury. The illocutionary adjectives of bad mother or clumsy child make the process of subject formation as invisible as the injurious results of unregulated automobile design.

At stake in Lewis v. Amorous was how to categorize the costs of a product that was both ordinary and dangerous, one that was virtually unregulated in design yet not fully controllable by even the most attentive human drivers when driven at speed in common spaces. Lewis poignantly demonstrates the difficulty that an injured plaintiff had in challenging the notion of the automobile as a common sense object and in trying to make her injuries legible and thereby compensable. A main barrier to this enhancing this legibility was the fact that citizens were increasingly being positioned—by courts, policy makers, auto enthusiasts, and the popular press—in relation to cars and driving, yet in ways that attenuated analysis of the car as itself a social actor. Cardozo’s decision in MacPherson, which states that a car is a thing of danger only when negligently made, gave further credence to the assumption that automobiles should be considered ordinary products, even as it extended notions of danger and chains of responsibility to the consumer.

This logic gained momentum throughout the century, as demonstrated in the cases of children injured by the tail fins of parked cars. Rather than recognizing children’s particular vulnerability to injury or noticing that the sharp tail fins were at the same height as children’s heads and that both tended to share neighborhood streets, precedent-setting courts consistently disregarded children’s interests and injuries. The Hatch decision, concluding that design matters are of substance only at speed and that parked cars do not count as de-
signed objects in public space, further demonstrates the ways that negligence in operation utterly eclipsed design in manufacture.

My original goal in writing this article was to better understand the concept of “dangerous instrumentality” and why, with all its potential as a way of understanding the dangers of automobility, it was dropped by the courts. Particularly, I was intrigued by how injury law in its various early permutations set out terms to interpret objects to which it attributed “inherent danger” and on what basis such attributions were made. Principally bewildering were the struggles by individual judges, exemplified through the language of legal opinion, to make concepts such as “dangerous instrumentality” and “inherently dangerous” logically inapplicable—even in the face of brutal and public violence. Thus, my impetus was to figure out how the automobile, which seemed to embody so many inherently dangerous features (such as its potentially high speeds, hard edges, cumbersome size), avoided this categorization even as “dangerous instrumentality” had been used, albeit unsystematically, for guns, animals, and aspects of carriage technology.

In this way, for those who are so inclined, the study lends itself to more programmatic statements on the anthropology of technology. Indeed, car culture lends itself well to broader explorations for several reasons. First, the automobile, as a commodity object, coincides remarkably well with an American fantasy of the liberal, sovereign, democratic subject, echoed through a legal system that assumes sovereign choosing subjects. Second, the automobile industry was, nearly from its inception, remarkably powerful, and it used the attraction of the features of the auto itself—promises of speed, individuated transit, and national economic well-being—in promoting of its own interests. Finally, the failures of this technology—pollution, urban sprawl, the politics of oil, injury and death, urban design, lack of alternative transit measures—have been nearly completely normalized in multiple ways as simply definitive of American culture and life. Thus, I will conclude by opening an avenue in the recent anthropological debates that analyze the agency of things or nonhumans.

Injury law presents an adversarial struggle that could be described through a series of contests: plaintiff versus defendant; object versus injury; and crosscutting these, liability versus, again, injury. The court translates between these languages of injury, object, and responsibility. In one way, then, the court is an ideal place from which to examine the argument that Bruno Latour has presented in many contexts with examples that range from door openers to speed bumps to Berlin keys: objects are agents with built-in language and possibilities. As a key with a peculiar square design that fits into a lock that can be easily altered by a building manager, the Berlin key does nothing except “carry, transport, shift, incarnate, express, reify, objectify, reflect, the meaning of the phrase: ‘lock the door behind you during the night, and never during the day’” (Latour 2000:18). The key is a material inscription of the demand’s compliance. How the court interprets that language will have a determinative effect on how damage awards are made, and I have argued here that the automobile of
1905 might have been understood by the Lewis court in 1907 to have danger written all over it.

But the language of injury implies a moral language. The automobile, should it burst out in speech, would not warn, “I will injure, watch out!” The automobile might instead say something like, “I will proceed with abandon and fragment things that are smaller and more fragile than I am.” What counts as injury or what fragilities should matter in the terms of American culture is necessarily a moral contest that exceeds any simple act of translation. Jacques Derrida put this quandary of translation in a way that could be used to further unpack the moral problem of human and nonhuman agents: “To address oneself to the other in the language of the other is, it seems, the condition of all possible justice, but apparently, in all rigor, it is not only impossible (since I cannot speak the language of the other except to the extent that I appropriate it and assimilate it according to the law of an implicit third) but even excluded by justice as law . . . inasmuch as justice as right seems to imply an element of universality” (Derrida 1990:949). Injury law, as a highly disciplined discursive practice, demands the translation and valuation of all kinds of entities, including those allegedly injuring (corporation via an object) and those injured. It demands further that those injured come to the table. “Your product injured me; it should not have; and you should not get away with it” is the ineluctable claim of the plaintiff.

How are the incommensurate knowledges and claims of humans and nonhumans made to meet? What are the normative intentions held within the principles and technologies of the law? Marilyn Strathern’s analysis of compensation in Papua New Guinea offers an ethnographic analogy through which one might think about the conversion of object and injury into compensation and moral responsibility. Strathern notes that in New Guinea “compensation entails making relations between persons visible through the flow of payments, and making them afresh. The vehicles for compensation . . . are thus pressed into the service of creating, limiting and expanding social relationships” (Strathern 1999:190). Compensation is thus much more than simply a payment but refers as well to the procedures of negotiating the terms of settlement (Strathern 1999:188). So the actors in the settlement process (protagonists and resources) are not prefabricated agents that come to the table to gain compensation but are rather “made present and effective only in the performance [of the compensatory process] itself” (Pottage 2001:117). Accidents, then, are not reducible to cause and effect and the “process itself defines what is transactable” (Strathern 1999:190).

On one level, the Melanesian analogy is not dissimilar to the American case law method. Edward Levi points out, in his classic rebuke to the notion that judges simply apply laws, that terms such as negligence do not emerge in law as fully-fledged universal touchstones but rather “must be given meaning by the examples to be included under it” (Levi 1949:27). Negligence gains meaning as it circulates through the process of case law. Similarly, the elision of the automobile from the category of “dangerous instrumentality” worked in
tandem with the interests of car owners to allow costs to remain largely as the responsibility of injured parties. As ways of categorizing the automobile as anything other than a normal commodity diminished, accidents had to be explained as individuated events that in each case could have turned out differently. On the contrary, a collision with a dangerous instrumentality would hold the predicted dangers always already within its rhetorical fold. Danger and risk would not be considered avoidable through proper behavior but would be encoded in the very event of automobility. The focus on individuated negligence through case-by-case contests, rather than on global death and injury rates through design alterations, worked to the limited benefit of car owners and to the primary benefit of manufacturers, and it allowed the bulk of injury costs to remain the responsibility of injured parties.

A moral positioning of subjects, enabled through the case law approach to individuated accidents, came to be the site of translation of the various agencies of objects, drivers, owners, and street-users. The translation of individual injury to individual responsibility increased both everyday criminality and overall risk, even as it used enormous resources in adjudicating each case separately. But an historicized analysis of this process serves as a useful frame with which to understand the historical emergence of how the injury law side of automobility mobilized identities by conjuring and disciplining subjects: through its power to distribute fault, the law worked to normalize social behaviors. In the larger framework of automobility, a historicization of the bystander as subject of automobility allows us to see the phenomenal coincidence between early legal rhetoric and 21st-century marketing rhetoric. In fact the former is necessary to understand the latter as culminating in an increasing privatization of risk. For who would not like to forget that the SUV or minivan or Volvo purchased by the good mother to protect a child on the freeway is quite likely to kill the child before it ever leaves the driveway?46

Notes

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1. Pedacycle deaths increased by 29 percent between 1998 and 1999. It also bears noting that mileage rates are very difficult to accurately estimate.

2. In 1997 at a San Francisco Museum of Modern Art conference on the exhibit “Icons: Magnets of Meaning,” I asked an automobile designer who had been discussing front-end design about what role pedestrian safety played in design. My comment met with an approving murmur from the crowd but was dismissed out of hand by the speaker. Since most pedestrian deaths occur at low speeds and at intersections when pedestrians
are either pulled under the automobile or hit their head on hard objects just under the hood, simple design changes could have far-reaching effects.

3. I write more about Sport Utility Vehicles in Jain in press.

4. Note here a crucial distinction between measurements of “crashworthiness,” which include design features such as crush zones and seat belts that will ensure the safety of a vehicle’s occupants, and indices of “aggressivity,” such as bumper height and front grill design, which determine the level of danger posed to those things hit by a vehicle. In another vein, the poor regulation that NHTSA provides is arguably worse than none, since manufactures can argue that civil cases are pre-empted by certain regulatory standards.

5. See Jain in press for a more extended elaboration of this point.

6. For example, one early case that hinged on the question of definition posed the following question: Since it carries fire from its own motive power, should it be allowed on steam passenger vessels, since “all fire must be extinguished before entering said vessel?” The Texas, 134 F. 909 (D.C.N.Y. 1905).

7. Here I am obviously relying on Bourdieu, who writes:

One of the fundamental effects of the orchestration of habitus is the production of a common-sense world endowed with the objectivity secured by consensus on the meaning of practices and the world, in other words the harmonization of agents’ experiences and the continuous reinforcement that each of them receives from the expression . . . of similar or identical experiences. [1977:80]

8. There were rare but trenchant critiques of the safety movement. An article appearing in 1923 in World’s Work points out that safety movements “make it possible to have more automobiles on the streets” by intimidating pedestrians and getting children off the roads. The author notes commercial interests in allowing higher speeds (more circulation translating into higher sales) and observes that a driver will slow down to protect his own car but not a pedestrian (Sullivan 1923).

9. On the one hand, had manufacturers or drivers consistently been held accountable for bystander injuries, it is likely that pedestrian safety would be considered in vehicle exterior design and engineering. We might well note that insurance is typically thought to undercut the value and goals of product liability law, since it cushions the defendant from financial “punishment.” On the other hand, my point is not causal. I am not arguing that if responsibility for design had been attributed to drivers, owners, and/or manufacturers, safer designs would have been developed. In fact, in cases such as SUV rollovers, manufacturers will often settle individual claims out of court rather than launch design overhauls. My aim is not to argue that product liability might have worked to produce safer cars but to show how responsibility became apportioned in tort law through the consolidation of new kinds of subjects.

10. Courts such as the Warren court of the 1950s and 1960s, which take positions against the grain of an invariably conservative precedent, are often known as “activist.”

11. Automobility did bring about a huge increase in the criminalization of everyday acts such as speeding, as evidenced by several contemporary articles with titles such as “A Criminal in Every Family” (Weeks 1927). However, automobile historians, such as Flink (1970) have noted that charges for murder or manslaughter were rarely brought and hardly ever sustained.

12. Arguments are summarized here from the Appellate Court’s published opinion (the trial court had no written opinion) and from Lewis’s original petition and each of the demurrers (defendants’ response), on file at the Georgia Department of Archives and History. Copies of Lewis Petition on file with author.
13. For more on the early use of the legal theory of dangerous instrumentality, see Carpenter 1952 and Horack 1917.

14. By 1952, comprehensive federal legislation regulated steamship design and performance. Another possibility existed and was briefly considered in Lewis. The concept of “attractive nuisance” was used to hold adults responsible for their belongings when they posed a danger to children and when children were likely to be attracted to playing with these objects. The court dismissed the claim in this case because of the age of Pybus, but the concept might have been expanded to include people of all ages (given the particular sort of attraction they held). This would also have the result that owners would be responsible for all accidents resulting from borrowers’ use and misuse of their belongings and may have opened a line of responsibility to marketers who highlight the attraction of the car.

15. Lewis Petition, 11–12. Shorter versions of this opinion are widely cited in automobile case books such as Berry (1909:20), where it is used as an “apt” explication that autos are not dangerous instrumentalities. The citation is also used in legal reference books to illustrate that automobiles do not fall under the dangerous instrumentality doctrine.

16. In fact, definitions of both car and horse tended to fracture along interests in automobility. Car interests made claims such as the following: The “truth is, we are just beginning to realize what a fractious, unreliable animal the horse is. . . . The animal is treacherous and dangerous, and his gradual elimination from the centers of civilization is not only much to be desired, but . . . a necessity” (Horseless Age 1899a:6), or “For the automobile has not, like a horse, a will of its own, which may act uncertainly. It is sensitive and responsive—acting in exact accordance with the principles upon which it is constructed. The accident which happens to the automobile is seldom due to the machine itself, but almost wholly to the loss of control or presence of mind of the operator” (Flink 1970:96). This is further complicated by suggestions of an earlier age, that in fact the horse was more like an automaton: Jean-Claude Izouard Delisle de Sales writes in the 18th century,

At first glance, the horse seems everything but a dangerous beast: the bands that encircle his body, the irons attached to him, the bit that has been devised so as to render his movements more exact, and the spurs with which he is prodded to move more rapidly: all this bespeaks of a highly organized automaton who moves only according to the will of the intelligent being that governs him. [Schnapp 1999:12]

These illustrations serve to further indicate how arbitrary this judge’s influential opinion must have been.

17. Another of these rational underpinnings would be the assumption that people would not intentionally hurt each other.

18. When a child was injured while playing on the street, the negligence of the parents was considered a question for the jury (Thies v. Thomas, 77 N.Y. Supp. 276 [1902]). That a plaintiff was affirmatively not guilty of negligence often had to be proven in order to recover damages, and playing in the street in itself could be understood as such negligence.

19. The writer of the letter further notes the moral attributions:

Lord Russell thinks it is ‘actually criminal’ for children to play in the streets, just as it is actually virtuous for a motorist to avoid running over them. The toddling child and the whistling errand boy are justly condemned criminals to whom the noble motorist graciously extends mercy. [Letter to the Editor, Living Age, July 25, 1908: 250]
20. For an analysis and image of “elaborate tests of fenders designed to safeguard pedestrians against being knocked down and run over by electric streetcars,” see Welke 2001:32.

21. It is well documented that manufacturers did not consider safety to be an aspect of design, and consumer self-reliance was pushed to what now seems ridiculous extremes. In 1953, for example, the Science News Letter reported on a paper given at the American Medical Association conference that outlined what would become known as whiplash. While the surgeons exhorted drivers to avoid accidents by leaving enough space in front of the car and making use of hand signals, “if collision is unavoidable, [drivers should] cover and support head and neck with arms” (Science News Letter 1953:381).

22. J. L. Austin clarifies the illocutionary/perlocutionary distinction of the words “I do.” The illocutionary power of the utterance “I do,” he argues, is consolidated both by the position of the speaker (someone answering the call of a minister) as well as by the disposition of the audience to accept the conditions under which the performing declaration is made. Austin claims that “to utter the sentence (in . . . the right circumstances) is not to describe my doing of what should be said . . . or to state that I am doing it: it is to do it” (1962:6).

23. In the first edition, he writes, “The fact that the automobile is a comparatively new vehicle is beside the question. The use of the streets must be extended to meet the modern means of locomotion” (1906:29).

24. Some courts were willing to note the difficulty of regulating autos. In 1905, the California Supreme Court ruled that cars should not be allowed on roads at night, pointing out the particular dangers of autos and of the technical disadvantages of horses: “It can be, and usually is, made to go on common roads at great velocity—at a speed many times greater than that of ordinary vehicles hauled by animals; and, beyond doubt, it is highly dangerous when used on country roads, putting to great hazard the safety and lives of the mass of the people who travel on such roads in vehicles drawn by horses” (Ex Parte Berry Supreme Court of California, 147 Cal. 523 [1905]:44). Although there are usually laws regulating speed, “it is a matter of common knowledge that these laws are frequently violated, and that it is exceedingly difficult for officers, even in the daytime, to stop them when going at forbidden speed and arrest the drivers” (Ex Parte Berry Supreme Court of California, 45).


26. This common sense was born of idiosyncratic legal locutions about speed. One of these follows: “Since the use of automobiles on the public highways is lawful, actions for damages due to injuries caused by such use must be founded on negligence.” Here again we see how injury and negligence are bound to such a degree that speed, design, and other factors are simply written out in the simple division between machine and person (Berry 1909:138).

27. An early example: “The explanation given for the President’s conversion to the new locomotion is that he conquered his prejudices enough to tempt fate in an automobile . . . and was soon brought under the spell of the machine” (Horseless Age 1899b:1).

28. Dangerous instrumentality was used repeatedly in automobile litigation. In a 1930 United States Supreme Court case, the court ruled that, “An automobile is, potentially, a dangerous instrumentality, as the appalling number of fatalities brought about every day by its operation bear distressing witness” District of Columbia v. Colts, 282
U.S. 63 (1930):212–221), But it is not at all clear what a “potential” dangerous instrumentality would mean and what standard of care it would require, although it could be determined to mean that an owner would be held liable for allowing, say, an unlicensed driver to borrow a car.

29. The exception to this standard was in Florida law, which held the auto to be a dangerous instrumentality. For the early courts’ reasoning on the Florida doctrine, see Anderson v. Southern Cotton Oil Company, 74 So. 975 (1917).

30. Drivers were very rarely criminally charged for killing children or adult pedestrians. When they were, outcry was raised in the popular press (Flink 1970:196).

31. The legal reference text Words and Phrases (1940:112–121) charts many different grammatical and doctrinal uses of the phrase, with the most slippage being first, in the confused concept of inherent and potential danger to life and limb in a product, and second, what role defective manufacture plays in that danger. Third, the question of intent, particularly when intent inheres to objects or when events allow for the extrapolation of intent, is confused. A revolver, for example, as a dangerous instrumentality, is a “dangerous and deadly weapon,” and its use in a manner likely to produce death authorizes inference of intention to kill (Southerland v. State, 197 N.E. 841 [Indiana 1935]).

32. There have been only a couple of exceptions to this. One occurred when Gwendolyn West was hit and killed by a tractor passing by in reverse gear. The court agreed that the grader was defective by obstructed rear visibility, lack of mirrors, and lack of back-up signals and concluded that strict liability should include a bystander who is not a direct user or consumer of a product (West v. Caterpillar Tractor Co., 547 F.2d 885 [1977]).

33. Stapp and Hugh DeHaven (the latter appointed to head NHTSA) were both early American engineers who worked on safety issues. For a very early example of this research, see DeHaven 1942. It is remarkable that the research began in earnest only in the 1950s, and even then by a very few engineers and researchers, when as early as 1908 it was observed that “an automobile or, for that matter, any very swiftly moving vehicle is, in effect, a projectile which differs in no essential respect from a shell discharged by a modern field piece” (Scientific American 1908:1).

34. The Harvard Fatal Highway Collision Project (1959–60), an 18-man medical and scientific team, was conducting its own crash investigation and found that the focus on driver error had led to a situation in which crashes were improperly investigated by poorly trained police. Reasons such as “excessive speed” or “driving in wrong lane” had been routinely imputed for improper repairs or mechanical failures (Stewart-Gordon 1962:124–128).

35. Please see Hatch v. Ford Motor Company, 163 Cal. App. 2d 393 (1958) and Kahn v. Chrysler Corporation, 221 F. Supp. 677 (Texas 1963). These are the earliest cases I have found that deal specifically with the issue of design defect and bystanders. I have not found any cases dating before the 1970s that address the issue of a pedestrian being hit by a moving vehicle and claiming that a manufacturer has put a defectively designed vehicle on the road. Before the 1950s, the main issue of parking is addressed through cases about runaway cars and stolen cars, in which driver (not manufacturer) responsibility is most often at stake. Ralph Nader discusses but does not reference several cases of adults and children being injured by tail fins (1965:169–170).

36. They are cited in later suits to justify that there is no legal duty of owners or manufacturers to bystanders (such as Rivers v. Ryder Truck Rental, 816 F. Supp. 1525 [1993]).
37. These cases could have been considered under a rubric of attractive nuisance, through which children could recover if injured by dangerous stationary objects even if trespassing.

38. This lack of concern about material objects in public space in the United States compares quite strikingly to contemporary discourse of the ideal Soviet socialist household, which took care to organize furniture with small children in mind, because they could hurt themselves on sharp edges (Buchli 1999:45).

39. Tailfins were such a site of cultural invisibility that even Liberty-Mutual’s two “survival cars,” developed between 1952 and 1961 and fitted with seat belts and 60 other safety design features, did not consider the question of external design. The cars used 1960 four-door Chevrolets as the “shell” for these prototypes; one of the cars is displayed in the Henry Ford Museum and Greenfield Village in Dearborn, Michigan. My thanks to Robert Casey for spending a morning showing me the museum.

40. The argument here resonates with Durkheim’s analysis of suicide. How can suicide be both freely chosen and utterly predictable on a statistical level?

41. In the 1950s, car manufacturers could still maintain immunity to many kinds of cases by arguing that cars were not intended to crash, and therefore manufacturers could not be held responsible for what happened in “second collisions.” This situation did not change until 1968, but it does illustrate that there was space for the judge to have followed a different line of reasoning than he did. *Larsen v. General Motors Corp.* (391 F.2d 495 [1968]) stated that while it is true that automobiles were not made for the purpose of colliding into each other (the argument manufacturers had theretofore used successfully), “a frequent and inevitable contingency of normal automobile use will result in collisions and injury producing impacts...[and there is] ‘no rational basis’ to distinguish injuries occurring in ‘second collisions’ from those caused by a ‘defect in design or manufacture’ ” (Quoted in Shapo 1993:46). This liability theory was largely, though not universally, adopted by courts after 1968.

42. Where bystander plaintiffs were involved in crashes in which both parties were moving, they had some luck recovering compensation for defective design. This was the case in *Passwaters v. General Motors Co.* (454 F.2d 1270 [1972]), where plaintiff received severe injuries from the spinning blades of a hubcap when, while riding a motorcycle, her leg was thrown into the wheel-well of a passing car. Here the court cited the Restatement (Second) of Torts: “Thus the manufacturer of an automobile, intended to be driven on the public highway, should reasonably expect that, if the automobile is dangerously defective, harm will result to any person on the highway, including pedestrians and drivers of other vehicles and their passengers and guests.” (Comment I, section 395 [1965] cited in *Passwaters v. General Motors*, 13). Another moving protrusion case was *Knippen v. Ford Motor Co.*, (546 F.2d 993 [1976]), in which, similar to *Passwaters*, a motorcyclist was injured by sharp protrusion. The court discussed both *Evans v. General Motors Corp.*, [359 F.2d 822 (7th Cir. 1966), cert. denied, 385 U.S. 836, 17 L. Ed. 2d 70, 87 S. Ct. 83 (1967)] (another crashworthiness case in which cars were held not to have to be crashworthy) and *Larsen v. General Motors Corp.*, 391 F.2d 495 (8th Cir. 1968)] The court also discussed what technology was available and who should know about it:

The jury’s verdict in this case does not rest on a conclusion that Ford should have employed a costly special safety design rather than the one it chose. Ford’s liability is based simply on its failure to thoughtfully apply commonly known design principles relating to localization of forces and to utilize less costly available alternative materials. [Knippen v. Ford, 1002]

Interestingly, Ford cited *Hatch and Kahn* in its defense. See also the 1969 decision of *Elmore v. American Motors Corp.* (70 Cal.2d 578 [1969]), in which a broken
driveshaft injured the occupants of two cars, and occupants of both cars were able to recover. These cases indicate a gradual opening of the bystander issue in the 1970s, one that remains extremely narrow. Stanford tort scholar Franklin, for example, told me that a person injured by an SUV would have no case against a manufacturer for design defect, and indeed the one such case in the United States was recently dismissed.

43. “To be just, the decision of a judge, for example, must not only follow a rule of law, or a general law but must also assume it, approve it, confirm its value, and by a re-instituting act of interpretation, as if ultimately nothing previously existed of the law, as if the judge himself invented the law in every case” (Derrida 1990:961).

44. See, for example, Collier et al. 1995. This, however, cannot stand alone as an explanation for the acceptance of the car, since steam cars were banned a few decades earlier, despite the fact that they embodied a similar promise and analogy to political values.

45. Think here of Twain’s comments on the 19th-century Hausmannization of Paris: “He is annihilating the crooked streets and building in their stead noble boulevards as straight as an arrow—avenues which a cannon ball could traverse without meeting an obstruction more irresistible than the flesh and bones of men” (Schnapp 2003:##).

46. A fifth of all children killed as pedestrians by motor vehicles in the United States are killed in driveways, and SUVs account for twice their share (measured by registered vehicles) of those deaths (Bradsher 2002:233–234).

References Cited

Abel, Richard
Albert, Daniel M.
Austin, John L.
Berry, C. P.
Borg, Kevin
Bourdieu, Pierre
Bradsher, Keith
Buchli, Victor
Carpenter, A. Eugene, Jr.
Collier, Jane, Bill Maurer, and Liliana Suarez-Navaz
Commonweal
DeHaven, Hugh
Derrida, Jacques
1990  Force of Law: The “Mystical Foundation of Authority.” Cardozo Law Review
Eastman, Joel
1984  Styling vs. Safety: The American Automobile Industry and the Development
Flink, James J.
Franklin, Marc A., and Robert L. Rabin
1992  Cases and Materials on Tort Law and Alternatives. 5th edition. Westbury, NY:
The Foundation Press.
Harper, Fowler V., and James Fleming Jr.
Horack, H. Claude
Horseless Age
1899a Damage Suit in Rhode Island. Horseless Age, November 15: 6.
Horwitz, Morton
1994  The Transformation of American Law 1870–1960: The Crisis of Legal Ortho-
Huddy, Xenophon
Jain, Sarah S. Lochlann
Joksch, Hans C.
2000  Vehicle Design versus Aggressivity. DOT HS 809 194.
Keeton, W. Page, Dan B. Dobbs, Robert E. Keeton, and David G. Owen
Kennedy, Duncan
Latour, Bruno
2000  The Berlin Key or How to Do Words with Things. In Matter, Materiality and
Levi, Edward H.
Letter to the Editor
Marx, Robert S.
1956  “Motorism,” Not “Pedestrianism:” Compensation for the Automobile’s Vic-
Mashaw, Jerry L., and David L. Harfst
McShane, Clay
1994  Down the Asphalt Path: The Automobile and the American City. New York:
Columbia University Press.
Michigan Law Review

Nader, Laura

Nader, Ralph

National Safety Council

Pottage, Alain

Schnapp, Jeffrey T.

Schwartz, Gary T.

Science News Letter

Scientific American
1908  The Force Involved in Automobile Collisions. Scientific American, October 31:1.

Shapo, Marshall S.

Skinner, D. O.

Smith, Andrew
2002  Publicist Pleads Guilty to Hitting Clubgoers. Saturday Sun-Sentinel (Fort Lauderdale, FL) Broward Metro Edition, August 24: 3A.

Spectator, The

Stewart-Gordon, James

Strathern, Marilyn

Sullivan, M.

United States Patent Office

Weeks, E.
Welke, Barbara Young
2001 Recasting American Liberty: Gender, Race, Law and Railroad Revolution.
Cambridge: Cambridge University Press.

Words and Phrases

Zelizer, Viviana A.