

CAUSATION, CONTRIBUTION, AND LEGAL LIABILITY: AN EMPIRICAL STUDY

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I

INTRODUCTION

This article presents empirical evidence of the ways people compare judgments of liability with judgments of causation and contribution. Specifically, the article reports the results of experiments designed to show whether people regard causation and enablement as necessary elements of liability. As suggested by past psychological research, the experiments also test what roles other factors, such as the defendant's state of mind and the severity of the victim's injury, play in people's judgments of both causation and liability.

The experiments ask people for their judgments concerning types of cases that the law does not treat uniformly. In one type of case, the defendant has left his keys in the ignition of his car. Someone steals the car and gets into an accident. In the other type, a social host sends an intoxicated guest out in a car to drive another guest home and the guest gets into an accident. Both of these scenarios illustrate what Robert Rabin has called "enabling torts."¹ The defendant does not directly cause the harm but sets the stage for the individual who does. As discussed below, courts disagree not only as to whether such cases should generate liability for the enabler, but also as to how these cases should be conceptualized in causal terms.

The results of the experiment show no more uniformity of judgment than the case law. Some respondents thought that there should be liability for the enabler, while others disagreed. Nonetheless, the study casts light on some important contemporary debates in the law of torts. First, the results begin to offer an explanation for the disagreement in the case law. Courts do not use the expression "enabling torts"; rather, they decide these cases using traditional tort

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1. See Robert L. Rabin, *Enabling Torts*, 49 DEPAUL L. REV. 435, 436 (1999).

concepts, such as duty, foreseeability, and proximate causation.² For example, some courts deny recovery for lack of proximate causation. Others allow recovery on the *basis* of proximate causation. Still others talk, instead, of duty. Professor Rabin's approach suggests an additional possibility: To the extent that people distinguish between causation and enablement, there may be no cause in fact in these cases. However, because enablement, like actual causation, is a "but for" relationship, legal thinkers who draw the distinction will find it difficult to articulate the problem in that way within the taxonomy of conventional tort theory. This article explores the possibility of such alternative conceptualizations.

The results of the study show people to be divided as to how they conceptualize these cases. Many respondents appear content to group causation and enablement together and to regard them essentially as components of a general concept of contribution. Those who do distinguish between the two disagree as to whether enablement is an adequate basis to establish liability. Some who see the actor as an enabler but not a cause do not assign liability to the actor, while others who see him only as enabling do assign liability. Thus, the uncertainty expressed by the courts perhaps mirrors the difficulty that ordinary language users have with these problems.

Second, the experiments strongly suggest that people believe that the amount of harm for which a defendant should be held liable depends on the extent of the defendant's *contribution* to bringing about the harm. In other words, people's naive sense of justice comports with theories of proportional liability.

Third, the actor's state of mind predicts liability to some extent, even when the law does not make such distinctions. For example, a willful enabler is typically assigned more liability than is a reckless one.

Part II of this article presents a brief outline of the current state of the law concerning cases that can be characterized as enabling torts. The discussion is not intended to be exhaustive. Rather, it is intended to describe the legal context that motivated the studies. Part III discusses some of what psychologists and linguists have observed about causation. Prior research demonstrates that experimental subjects consistently distinguish between enablement and causation. Furthermore, people do not ordinarily use the language of causation to talk about situations of enablement. These observations are important, because they underscore the fact that people *can* distinguish between these concepts but do not always do so when the task does not demand it. Part IV describes the experiments and sets forth the results. Part V, the conclusion, suggests some possible implications of the study for legal theory and legal practice. In particular, the conceptual difficulties associated with these results suggest that decisionmakers should focus their explanations on the social values that flow from their decisions, rather than assuming consensus on people's understanding of causation and enablement.

2. Since its publication in 1999, Professor Rabin's article, *supra* note 1, has been cited by one court. See *Hamilton v. Accu-Tec*, 62 F. Supp. 2d 802, 822 (E.D.N.Y. 1999).

II

CAUSATION AND ENABLEMENT IN THE LAW

A. The Threatened Status of Causation as a Prerequisite for Liability

It is a legal maxim that people should be held liable for only harms that they have actually caused. There is no liability for “negligence in the air.”³ The careless person who causes no damage is not held liable for his or her carelessness, while the equally careless person who does cause damage must pay for it. Moreover, the legal system holds that only some of the harms that an actor actually caused should subject her to liability. People are not held liable for harms that they caused in fact, but that were not foreseeable, were too remote, or were the result of more immediate intervening causes. Taken together, these principles make up the cause in fact and the proximate cause requirements that are standard in American tort law.⁴

Recently, some of the basic principles that relate liability and causation have been questioned on a number of fronts. First, at least in some cases, scholars have advocated the elimination of the causation requirement when scientific ignorance appears to give defendants too great an advantage. For example, Margaret Berger has suggested that the causation requirement in toxic tort cases discourages corporations from doing scientific research that could later demonstrate that a product is dangerous.⁵ She recommends dispensing with the requirement of general causation and imposing liability for failure to disseminate adequate information relevant to risk. “The result,” she writes, “would be a new tort that conditions culpability on the failure to develop and disseminate significant data needed for risk assessment.”⁶ Elsewhere in this volume, Carl Cranor and David Eastmond present convincing evidence to the effect that reliable epidemiological evidence is absent with respect to the vast number of commercially available chemical substances, and that even when evidence exists, it is often not dispositive.⁷ They too support a version of Professor Berger’s proposal.

3. *Martin v. Herzog*, 126 N.E. 814, 816 (N.Y. 1920). Justice Cardozo stated the rule as follows: We must be on our guard, however, against confusing the question of negligence with that of the causal connection between the negligence and the injury. A defendant who travels without lights is not to pay damages for his fault unless the absence of lights is the cause of the disaster. A plaintiff who travels without them is not to forfeit the right to damages unless the absence of lights is at least a contributing cause of the disaster. To say that conduct is negligence is not to say that it is always contributory negligence. “Proof of negligence in the air, so to speak, will not do.

Id.

4. For a recent statement of the distinction between causation in fact and proximate causation, see DAN B. DOBBS, *THE LAW OF TORTS* 407-09 (2000).

5. See Margaret A. Berger, *Eliminating General Causation: Notes Towards a New Theory of Justice*, 97 COLUM. L. REV. 2117 (1997).

6. *Id.* at 2140.

7. See Carl F. Cranor & David A. Eastmond, *Scientific Ignorance and Reliable Patterns of Evidence in Toxic Tort Causation: Is There a Need for Liability Reform?*, 64 LAW & CONTEMP. PROBS. 5 (Autumn 2001).

Second, following an important article written by David Rosenberg in 1984,⁸ some courts have explored theories of proportional causation. Most prominent among these cases is Judge Weinstein's opinion in the Agent Orange litigation.⁹ That case involved the court's approval of a class action settlement. In ruling that the settlement was adequate, the court noted several problems concerning causation. First, it was not beyond doubt that the small doses of Agent Orange to which some of the plaintiffs were exposed could cause their illnesses as alleged.¹⁰ Second, even if Agent Orange increased the risk of specific types of illness, one could not determine whether a particular plaintiff's illness had anything to do with his exposure to Agent Orange.¹¹ Third, in cases like the Agent Orange litigation, in which more than one manufacturer makes the toxin that increases the risk of disease, it is impossible to determine which manufacturer is even potentially responsible for a particular plaintiff's disease.¹² While approving a class action settlement, Judge Weinstein opined that a reasonable way to handle such a situation is to take the total amount of damages suffered, multiply that amount by both the increase in risk that the toxin imposes (for example ten percent), and then multiply that figure by the likelihood that any one manufacturer was responsible (for example ten percent again, assuming there are ten manufacturers who distributed the toxin in equal amounts).¹³ In such a case, each of the ten manufacturers would be responsible for one percent of the harm. Judge Weinstein candidly admitted that "it is doubtful whether the legal system is ready to employ this device except, perhaps, as part of an overall settlement plan voluntarily entered into by the parties."¹⁴ Nonetheless, such cases demonstrate that while the concept of causation is still alive and well in tort law,¹⁵ it is undeniable that questions are being raised with respect to cutting edge issues.

Third, courts sometimes simply dispense with the requirement that a plaintiff prove "general causation" before being permitted to prove "specific causation." Typically, a plaintiff must prove that an agent is capable of causing the harm alleged before proving that the agent actually caused harm to the plaintiff. As the New York Court of Appeals has described this logic:

The methodology for determining whether a person's illness was caused by a specific toxin, as prescribed by WHO and NAS, and recommended by the Reference Manual, is a three-step procedure: First, the level of exposure of plaintiff to the toxin in question must be determined; second, from a review of the scientific literature, it must be

8. David Rosenberg, *The Causal Connection in Mass Exposure Cases: A "Public Law" Vision of the Tort System*, 97 HARV. L. REV. 849 (1984).

9. See *In re Agent Orange Prods. Liab. Litig.*, 597 F. Supp. 740 (E.D.N.Y. 1984).

10. See *id.* at 781.

11. See *id.*

12. See *id.* at 819.

13. See *id.* at 838.

14. See *id.* at 748.

15. See, e.g., *Sindell v. Abbott Lab.*, 607 P.2d 924, 936-37 (Cal. 1980) (employing the theory of proportional liability); see also Joseph Sanders & Julie Machal-Fulks, *The Admissibility of Differential Diagnosis Testimony to Prove Causation in Toxic Tort Cases: The Interplay of Adjective and Substantive Law*, 64 LAW & CONTEMP. PROBS. 107 (Autumn 2001).

established that the toxin is capable of producing plaintiff's illness—called “general causation”—and the dose/response relationship between the toxin and the illness—that is, the level of exposure which will produce such an illness—must be ascertained; and third, “specific causation” must be established by demonstrating the probability that the toxin caused this particular plaintiff's illness, which involves weighing the possibility of other causes of the illness—a so-called “differential diagnosis.”¹⁶

As Joseph Sanders and Julie Machal-Fulks point out, however, expert testimony of differential diagnosis that points to a particular cause is sometimes accepted in tort cases without proof that as a general matter the agent specified as the cause in this particular case is capable of causing the plaintiff's injury.¹⁷ These instances, like the other two, concern problems of proof. At times, the system recognizes, plaintiffs are put to an unreasonable burden, and standards of proof must be relaxed for the system to do justice.

Most of this article will focus on a fourth area in which causation has been questioned as a prerequisite for liability. There has been a growth in liability for what Robert Rabin has called “enabling torts”—situations in which the defendant “sets the stage” for a wrong to occur but does not commit the actual wrong.¹⁸ The question raised in these cases is not the burden of proof, but rather whether the legal system should impose liability in the first place.

Among the examples of enabling torts that Rabin discusses are the following: A car owner negligently entrusts his car to an unlicensed or intoxicated person who causes an accident.¹⁹ A social host or bartender gives alcohol to an intoxicated person who later causes an accident because of his drunkenness (dram shop cases).²⁰ A train motorman misses a stop, and stops instead several blocks past the station, in a bad neighborhood. A passenger gets out of the train, only to be attacked while walking back to the station.²¹ A car owner leaves his keys in the ignition and someone is injured when the car is stolen and

16. *Mancuso v. Consolidated Edison Co. of N.Y.*, 56 F. Supp. 2d 391, 399 (S.D.N.Y. 1999); *see also Sanders & Machal-Fulks, supra* note 15, at 110 (“General causation asks whether exposure to a substance causes harm to anyone. Specific causation asks whether exposure to a substance caused a particular plaintiff's injury.”).

17. *See Sanders & Machal-Fulks, supra* note 15, at 132 (citing *Becker v. National Health Prod., Inc.*, 896 F. Supp. 100, 102 (N.D.N.Y. 1995); *McCulloch v. H.B. Fuller Co.*, 61 F.3d 1038, 1043 (2d Cir. 1995)).

18. *See Rabin, supra* note 1, at 437-38.

19. *See, e.g., Blake v. Moore*, 162 Cal. App. 3d 700 (1984) (finding potential liability where defendant “provided plaintiff both liquor and a car”); *Schneider v. Midtown Motor Co.*, 854 P.2d 1322 (Colo. App. 1993) (grounding dealership's liability on sale of automobile to unlicensed driver); *Hardwick v. Bublitz*, 119 N.W.2d 886 (Iowa 1963) (finding that, although guest statute applied in that particular case, potential liability of parents for entrusting car to their son who did not yet have a drivers license applied if accident caused by the driver's inexperience); *Keller v. Wellensiek*, 181 N.W.2d 854 (Neb. 1970) (same).

20. *See, e.g., Whelchel v. Laing Properties, Inc.*, 378 S.E.2d 478 (Ga. Ct. App. 1989) (finding potential liability of employer who served employee alcohol at company Christmas party); *Kelly v. Gwinnell*, 476 A.2d 1219 (N.J. 1984) (finding social host who knowingly provides alcoholic beverage to an intoxicated guest liable for damages that the guest causes by driving negligently as a result of being intoxicated).

21. *See Hines v. Garrett*, 108 S.E. 690 (Va. 1921).

the thieves cause an accident.²² A landlord stops providing doorman service at her apartment building. Someone leaves the side door unlocked and another tenant is injured in a robbery.²³ The manufacturer designs and makes machines such that safety devices are easily modified so as to be rendered ineffective.²⁴

An enabling event is a necessary, but not a sufficient, condition for the plaintiff's injury. Thus, enabling tort cases are the mirror image of cases in which someone intervenes to shoot the victim before the poison that the defendant administered takes effect. In that case, the defendant's action is sufficient to have killed the victim, but not necessary, because someone else got to him first.²⁵ Enabling torts, in contrast, establish circumstances necessary for someone else to cause the harm. Leaving the key in the ignition, for example, is a necessary element of the sequence of events that leads to someone stealing the car and causing an accident by driving recklessly. But it is not sufficient, and it is not the only necessary act. Subsequent theft and negligent or reckless driving are also required. Thus, enabling torts are necessary elements of sufficient sets.

In an influential article, Richard Wright argues that we should conceptualize causation around just that concept: necessary elements of sufficient sets ("NESS").²⁶ Wright impressively demonstrates that this concept accounts for a substantial array of judicial decisions concerning liability in tort cases.²⁷ Although enabling torts fit Wright's definition well, we will argue that these kinds of cases are ones that ordinary speakers of English would not likely describe using the language of causation. That is, Wright and other tort theorists may well be correct in stating what it should take to establish liability in tort, but they may also be at odds with everyday intuitions in labeling all of this "causation." Superficially, the issue is terminological, but its ramifications are not simply a matter of nomenclature. Enabling torts are controversial. Courts are still sharply divided over many of them, such as key-in-the-ignition cases and social host cases, which are the subject of these experiments. Courts reluctant to impose liability often refuse to do so based on the absence of proximate cause. Those wishing to impose liability must either redefine causation in a potentially unnatural way or dispense with the causation requirement, as Judge Weinstein so candidly did in the Agent Orange litigation. A more sophisticated

22. See, e.g., *Davis v. Thornton*, 180 N.W.2d 11, 17 (Mich. 1970). Courts remain in disagreement over whether there should be liability under these circumstances. For discussion, see *infra* text accompanying notes 40-68.

23. See, e.g., *Kline v. 1500 Mass. Ave. Apartment Corp.*, 439 F.2d 477 (D.C. Cir. 1970).

24. See, e.g., *Piper v. Bear Med. Sys., Inc.*, 883 P.2d 407 (Ariz. Ct. App. 1993).

25. For discussion of people's culpability judgment about such cases, see PAUL H. ROBINSON & JOHN M. DARLEY, *JUSTICE, LIABILITY AND BLAME: COMMUNITY VIEWS AND THE CRIMINAL LAW* 181-89 (1995).

26. See Richard W. Wright, *Causation in Tort Law*, 73 CAL. L. REV. 1735 (1985).

27. But see Richard Fumerton & Ken Kress, *Causation and the Law: Preemption, Lawful Sufficiency, and Causal Sufficiency*, 64 LAW & CONTEMP. PROBS. 83 (Autumn 2001) (arguing that Wright does not adequately handle certain cases in which an intervening cause preempts the defendant's conduct).

understanding of the relationship between causation and intuitions about liability should help to rationalize this area of the law.

H.L.A. Hart and Tony Honoré present an example of the difficulty that theorists have with this issue. On the one hand, their book, *Causation in the Law*, repeatedly argues that causation is a prerequisite for liability.²⁸ On the other hand, the authors devote a small part of one chapter to discussing liability for “occasioning harm,” whose focus is largely on enabling torts.²⁹ Hart and Honoré seem to recognize that these kinds of torts do not really fit the common sense intuitions about causation on which they rely.³⁰

Moreover, enabling torts are now a seat of controversy among tort law theorists. Two of the most contested types of claim—negligent sale of firearms and tobacco litigation—depend on the availability of liability for enablement. A recent article by Aaron Twerski and Anthony Sebok argues that Judge Weinstein’s approach to the Agent Orange litigation should be applied more broadly to litigation for negligent sales of firearms.³¹ In this context as well, it is important to understand the extent to which cause really is a prerequisite for liability. Liability for enablement, they argue, should be a function of the extent to which the enabling tort contributes to the ultimate harm. The experiments reported below indicate that people generally share this intuition about liability. The amount of liability that people impose depends in large part on how much they believe the defendant contributed to bringing about the injury.

Finally, disagreement about the relationship between liability and causation has led to diverse and confused instructions to juries around the United States. Perhaps the most telling example is California’s, which states: “The law defines cause in its own particular way. A cause of injury, damage, loss or harm is something that is a substantial factor in bringing about an injury, damage, loss or harm.”³² Note how peculiar it really is to take an ordinary concept and to give it a definition that applies just to those lucky enough to draw jury duty. This article takes no position on the substantial factor approach to tort liability.³³ Yet it is not the least bit obvious that substantial factor defines causation other than stipulatively.

28. See H.L.A. HART & TONY HONORÉ, *CAUSATION IN THE LAW* 133 (2d ed. 1985).

29. *Id.* at 194-204.

30. See *id.* at 26. Contemporary torts theorists also look at causation in fact as a common sense notion. See, e.g., W. PAGE KEETON ET AL., *PROSSER AND KEETON ON THE LAW OF TORTS* 264 (5th ed. 1984) [hereinafter *PROSSER & KEETON*] (“This question of ‘fact’ ordinarily is one upon which all the learning, literature and lore of the law are largely lost. It is a matter upon which lay opinion is quite as competent as that of the most experienced court.”); David W. Robertson, *The Common Sense of Cause in Fact*, 75 *TEX. L. REV.* 1765 (1997).

31. Aaron Twerski & Anthony J. Sebok, *Liability Without Cause? Further Ruminations on Cause-in-Fact as Applied to Handgun Liability*, 32 *CONN. L. REV.* 1379, 1402 (2000).

32. COMMITTEE ON STANDARD JURY INSTRUCTIONS, *CALIFORNIA JURY INSTRUCTIONS CIVIL, BOOK OF APPROVED JURY INSTRUCTIONS (BAJI)* § 3.76 (8th ed. 1995).

33. See, e.g., *RESTATEMENT (SECOND) OF TORTS* § 431 (1963) (adopting the “substantial factor” test):

431. What Constitutes Legal Cause

The actor’s negligent conduct is a legal cause of harm to another if

The law of causation, then, seems to be in a state of uncertainty. Not only is there debate over how much proof of causation should be required, but there is debate about whether causation should be required at all in some cases, or whether enablement is enough. Moreover, in making decisions about causation, courts at least purport to be applying “common sense” intuitions, to use Hart & Honoré’s standard for how causative notions enter the law.³⁴ This leads to some interesting questions: Do people distinguish between causation and enablement in their everyday thinking? If so, does the law’s taxonomy match people’s ordinary conceptualization? Do people’s judgments of such terms as causation, contribution, and enablement predict their judgments about liability? Does one do a better job than others? These are the questions addressed in a study reported later in this article.

B. The Legal System’s Handling of Enablement Cases

This section considers just how confused judicial analysis of enabling torts really is. It focuses on key-in-the-ignition cases and cases in which social hosts are sued for sending an intoxicated guest out on the road. These cases comprise a substantial percentage of the enablement cases in the courts. For that reason, the experiments focus on these cases. In enablement cases, the original actor (the defendant) is sued under a tort theory. The legal system most often says that the defendant should not be held liable, depending on the extent to which it was foreseeable that the careless act would result in injury. But this view is by no means universal and there is no consensus about how the issues should be analyzed.

1. *Key-in-the-Ignition Cases.* Let us focus on cases in which an owner of a vehicle leaves the keys in the ignition. The vehicle is later stolen, and the thief injures the plaintiff in an accident. Should the owner be liable for negligently leaving the keys in the car? Most jurisdictions say no. As Judge Easterbrook has put it, “[a] person whose negligence just sets the stage for a criminal act generally is not liable for ensuing injury. For example, a person who negligently leaves a car unattended, with the keys in the ignition, is generally not liable to a person injured by a thief driving the car.”³⁵ Easterbrook appears to be drawing a distinction between causation and enablement in his statement of the rule, and claiming that enablement is not good enough. However, “[a] substantial and growing number of jurisdictions, though still a minority, have held, in the ordinary fact case of theft and accident within a reasonable time thereafter that there are at least jury questions as to duty, negligence and proximate cause.”³⁶

(a) his conduct is a substantial factor in bringing about the harm, and

(b) there is no rule of law relieving the actor from liability because of the manner in which his negligence has resulted in the harm.

34. See HART & HONORÉ, *supra* note 28, at 26.

35. *Mays v. City of E. St. Louis*, 123 F.3d 999, 1003 (7th Cir. 1997).

36. *Zinck v. Whelan*, 294 A.2d 727, 730 (N.J. Super. Ct. App. Div. 1972). For further discussion, see *McCarthy v. Olin Corp.*, 119 F.3d 148, 169 n.21 (2d Cir. 1997) (Calabresi, J., dissenting).

Because courts are still in a surprising state of disagreement over this long-standing issue, it is useful to explore the range of rationales that courts offer for their decisions.³⁷ In fact, the explanations that courts give for their decisions are not uniform.

For example, a number of courts have held that there is no liability because there was no proximate causation as a matter of law. Consider the following reasoning from the Supreme Court of Ohio court in *Ross v. Nutt*:³⁸

It is a basic prerequisite that in order to recover for an alleged negligent injury the act complained of must be the direct and proximate cause of the injury. For an act to be the proximate cause of an injury, it must appear that the injury was the natural and probable consequence of such act To find that an injury was the natural and probable consequence of an act, it must appear that the injury complained of could have been foreseen or reasonably anticipated from the alleged negligent act The mere statement of the question shows that to hold defendant liable would require him to have anticipated not one but two probable consequences as a result of his leaving his key in his car. He must have foreseen first, that his car would be stolen, and, second, that the thief would operate the car in such a negligent manner as to cause an injury to some member of the public.³⁹

This case makes the concept of proximate cause do all the work. The subsequent theft of the car and the accident were not sufficiently foreseeable to the defendant for the system to hold him liable. Other cases also hold that the sequence of the car's theft by a bad driver who later causes an accident is not foreseeable enough to allow leaving the keys in the ignition to be considered a proximate cause as a matter of law.⁴⁰

In contrast, some courts find that the defendant who leaves his key in the ignition can be a proximate cause. Consider this quotation from a Michigan case: "We therefore hold that reasonable men might have concluded that leaving the keys in the ignition under these circumstances was not too remote a cause of the plaintiff's injuries and that the joyrider's intervention did not sever that causal connection."⁴¹ At least nominally, the Supreme Court of Michigan agrees with the other courts on the law: No causation equals no liability. However, there is disagreement about whether enabling the theft of the car should count as proximate cause. Michigan says that it should; Ohio says that it should not.

37. In some states, it is illegal to leave one's keys in the ignition. The debate in those cases is still the issue of causation. The statute makes it negligence per se to have left one's keys in the car. Courts then have to decide whether that negligence should lead to liability. See, e.g., *Dix v. Motor Market, Inc.*, 540 S.W.2d 927 (Mo. App. 1976) (stating that the statute did not intend to impose liability when the criminal act of another was an intervening cause).

38. 203 N.E.2d 118 (Ohio 1964).

39. *Id.* at 120.

40. See, e.g., *Manchenton v. Auto Leasing Corp.*, 605 A.2d 208, 213 (N.H. 1992) (stating that because subsequent accident was not foreseeable, there was no duty to accident victims, whose injuries were caused by thief's conduct).

41. *Davis v. Thornton*, 180 N.W.2d 11, 17 (Mich. 1970); see also *Vining v. Avis Rent-a-Car Sys., Inc.*, 354 So.2d 54 (Fla. 1977).

Finally, some courts hold defendants who leave their keys in ignitions liable but talk instead about duty.⁴² Consider the following quote from *Richardson v. Ham*,⁴³ a California opinion written by Justice Traynor. The case involved a construction company leaving a bulldozer on a construction site. Teenagers started it up at night and abandoned it while it was still running. The bulldozer caused substantial personal injury and property damage before it stopped when it hit a telephone pole. The Court held that “[t]he extreme danger created by a bulldozer in uncontrolled motion and the foreseeable risk of intermeddling fully justify imposing a duty on the owner to exercise reasonable care to protect third parties from injuries arising from its operation by intermeddlers.”⁴⁴ Here, the court concerns itself with whether the defendant was negligent at all by having breached a duty. The court focuses on foreseeability both in finding a duty and in rejecting the defendant’s argument that the misconduct of the teenagers constituted an independent superseding cause that would relieve the defendants of liability.⁴⁵

Professor Dan Dobbs also argues that key-in-the-ignition cases are not about proximate causation but about whether the key-leaver was negligent in the first place. But Dobbs does not rely on duty. Instead, he argues that the issue of foreseeability is really about negligence: “If I leave the keys in the ignition of my parked car, I am surely foolish but not necessarily negligent. I would be negligent only if I should foresee that some dangerous use of the car might follow, perhaps because a thief takes the car and drives it negligently.”⁴⁶ Prosser and Keeton take the same position.⁴⁷ The Supreme Court of Minnesota considered the issue a mixed one of negligence and proximate causation.⁴⁸

All of these courts appear to be relying on the same theory: To establish liability, a plaintiff must prove that the defendant owed a duty to the plaintiff, that the defendant breached that duty, and that the defendant’s breach of duty both actually and proximately caused the plaintiff’s injury. In many of the cases, foreseeability plays a prominent role. However, not all cases rely on foreseeability as the controlling concept, and among those that do, courts are not in accord as to whether the issue to which it relates is duty, proximate causation, or a generalized notion of negligence. Some judges have recognized this

42. For discussion of the relationship between duty and proximate cause, with criticism of courts that use duty to deal with issues of foreseeability, see DOBBS, *supra* note 4, at 449-50.

43. 285 P.2d 269 (Cal. 1955).

44. *Id.* at 271.

45. *See id.* at 272.

46. DOBBS, *supra* note 4, at 448.

47. PROSSER & KEETON, *supra* note 30, at 203 (“Yet the issue in such cases remains one of negligence—which is to say that the foreseeable risk of the crime is unreasonable considering the burden of taking precautions.”).

48. *See Illinois Farmers Ins. Co. v. Tapemark Co.*, 273 N.W.2d 630 (Minn. 1978). Although not articulated this way, it would appear that foreseeability that a car will be stolen is an issue of negligence, and foreseeability that the thief will drive negligently and cause an accident is a matter of proximate causation. The court appears to blend the two issues.

disagreement among courts in analyzing this problem.⁴⁹ Courts do not analyze this issue as one of causation in fact versus enablement. Yet both linguistic analysis and experimental evidence presented below suggest that tacit disagreement over actual causation may be contributing to these conceptual differences. Enablement can be seen either as its own concept, distinct from causation, or as an indirect form of actual causation.

2. *Social Host Cases.* The law concerning liability of social hosts is even less settled. Traditionally, social hosts have not been held liable for accidents caused by a person that the host served. The New York Court of Appeals stated the basic rule:

At common law, one who provided intoxicating liquor was not liable for injuries caused by the drinker, who was held solely responsible. Excessive alcohol consumption was deemed to be the proximate cause of injuries produced by the inebriate; selling or furnishing alcohol to an adult who elected to become intoxicated was not viewed as the root of the resulting harm.⁵⁰

In most states, this is still the law.⁵¹ Nonetheless, like the key-in-the-ignition scenario, in a number of cases, social hosts have been held liable for accidents caused by guests who were intoxicated when they left the host. And like the key-in-the-ignition cases, courts deal not only with issues of policy, but with issues of statutory construction, typically involving the scope and consequences of dram shop statutes that govern liability of tavern owners who send intoxicated customers out onto the roads.⁵²

Again, those jurisdictions that provide substantive analysis are not in complete accord. Some states, such as New York, hold that the drunk driver, not the social host, was the proximate cause of the accident.⁵³ Others dispense with discussion of causation and hold that the law imposes no duty on social hosts to refrain from making sure that intoxicated guests do not later drive. In *Cart-*

49. See, e.g., *McCarthy v. Olin Corp.*, 119 F.3d 148, 169 n.21 (2d Cir. 1997) (Calabresi, J., dissenting) (“In other words, could the defendant be held liable for the criminal acts of an intervenor absent any direct relationship with the plaintiff? Historically, a majority of jurisdictions answered this question in the negative, finding either no duty or no proximate cause.”); *Dix v. Motor Market, Inc.*, 540 S.W.2d 927, 931 (Mo. App. 1976):

A clear majority of the jurisdictions have decided that it was not reasonably foreseeable that an intermeddler would both take the auto and then negligently operate it. No liability was found in these cases even though there sometimes was an ordinance or statute prohibiting leaving an unlocked car on a public way with the key in the ignition or with an open ignition switch. Some of these cases found no duty of the car owner to the injured plaintiff, while others found as a matter of law no proximate cause. Some courts combined both the duty and proximate cause concepts to find no liability.

50. *D’Amico v. Christie*, 518 N.E.2d 896, 898 (N.Y. 1987).

51. For a tally, see Edward L. Raymond, Annotation, *Social Host’s Liability for Injuries Incurred by Third Parties as a Result of Intoxicated Guest’s Negligence*, 62 A.L.R. 4th 16 (1988 & 2000 Supp.); see also LaDonna Hatton, Note, *Common Law Negligence Theory of Social Host Liability for Serving Alcohol to Obviously Intoxicated Guests*, 26 B.C. L. REV. 1249 (1985).

52. See, e.g., *Boutwell v. Sullivan*, 469 So.2d 526 (Miss. 1985) (holding that statute governing liability of “permittees” does not cover social hosts, and there is no independent common law liability of social hosts); *Cady v. Coleman*, 315 N.W.2d 593 (Minn. 1982) (holding that limiting language in state dram shop statute was intended to insulate social hosts).

53. See *D’Amico*, 518 N.E.2d at 899.

wright v. Hyatt Corp., a District of Columbia case, the plaintiff argued in a wrongful death case that the accident in which the decedent was killed was proximately caused in part by a defendant's purchasing liquor for a social guest.⁵⁴ The court, instead, relied on a theory of duty in refusing to impose social host liability:

At the outset, defendants Chew and Hyatt Corporation claim that there is no basis on which to hold them liable, in that Chew, a social host, had no duty to refrain from providing alcoholic drinks to [the intoxicated guest]. Indeed, while District of Columbia law imposes such an obligation upon commercial vendors of liquor, in circumstances indicating that a person is intoxicated and reasonably likely to cause harm to others, it has never been held to impose that duty upon social hosts.⁵⁵

In contrast, some jurisdictions have found that the social host proximately caused the accident, and therefore impose liability. The Supreme Court of Montana had earlier ruled that social hosts were not liable for injuries caused by minor guests who left the host's home intoxicated.⁵⁶ The court subsequently overruled this decision in a case involving the liability of a tavern owner.⁵⁷ On the issue of causation, the court described the traditional position as a "Neanderthal approach":

[Prior precedent] is bottomed on a statement of law that must be addressed, viz. that the drinking of the intoxicating beverage, not the furnishing thereof, is the proximate cause of any subsequent injury (subject to the "helplessness" exception). This Neanderthal approach to causation exempts the purveyor of alcoholic beverages from liability without regard to his own negligence or fault. To the extent [this precedent] may be read to so hold, we expressly overrule it.⁵⁸

Similarly, Oregon imposes common law liability for social hosts provided that the "negligent conduct was a substantial factor in bringing about the injuries."⁵⁹

The Supreme Court of New Jersey based its holding in *Kelly v. Gwinnell* both on proximate causation ("When negligent conduct creates such a risk, setting off foreseeable consequences that lead to plaintiff's injury, the conduct is deemed the proximate cause of the injury.")⁶⁰ and on duty:

We therefore hold that a host who serves liquor to an adult social guest, knowing both that the guest is intoxicated and will thereafter be operating a motor vehicle, is liable for injuries inflicted on a third party as a result of the negligent operation of a motor vehicle by the adult guest when such negligence is caused by the intoxication. We impose this duty on the host to the third party because we believe that the policy considerations served by its imposition far outweigh those asserted in opposition.⁶¹

54. See 460 F. Supp. 80 (D.D.C. 1978).

55. *Id.* at 81 (internal citations omitted); see also *Bruce v. Chas Roberts Air Conditioning, Inc.*, 801 P.2d 456, 459 (Ariz. Ct. App. 1990) ("We do not believe that reasonable persons would extend to the social host the liability imposed upon the tavern keeper. The consequences of imposing such a duty are economically and socially staggering.")

56. See *Runge v. Watts*, 589 P.2d 145 (Mont. 1979).

57. See *Nehring v. LaCounte*, 712 P.2d 1329 (Mont. 1986).

58. *Id.* at 1335.

59. *Solberg v. Johnson*, 760 P.2d 867, 871 (1988) (quoting *Rappaport v. Nichols*, 156 A.2d 1, 9 (N.J. 1959)).

60. 476 A.2d 1219, 1221 (N.J. 1984).

61. *Id.* at 1224. The New Jersey legislature subsequently codified this standard in N.J. STAT. ANN. § 2A:15-5.6b (West 2000).

The Supreme Judicial Court of Massachusetts, in turn, based its decision to impose social host liability on the reasoning of the New Jersey court and others.⁶²

Notably, and in contrast with the key-in-the-ignition cases, the New Jersey case also imposes a state of mind requirement for liability: The defendant must know that the guest is intoxicated and must know that the guest will be driving a vehicle while intoxicated.⁶³ Obviously, this is a policy decision. Yet some courts have associated the state of mind requirement with the issue of proximate causation. For example, Georgia courts have held that knowledge of the guest's intoxication makes it more foreseeable that the guest will cause an accident, and foreseeability is the principal element of proximate causation.⁶⁴

Some courts impose even stronger state of mind requirements, holding that only wanton conduct is enough to justify the imposition of liability on social hosts. For example, the Supreme Court of Connecticut engaged in a lengthy discussion of causation in determining that policy considerations that "might justify protecting both a vendor and a social host from common law liability for the injurious consequences of negligent conduct in the sale or serving of alcoholic beverages to another" do not apply when "the conduct constitutes wanton and reckless misconduct."⁶⁵ The court appears to have associated causation with responsibility.⁶⁶

Where does this leave us? These decisions are even more conceptually at odds with one another than the key-in-the-ignition cases. Some cases deny liability because there is no proximate causation. On essentially the same facts, other cases permit liability because there *is* proximate causation. Still others speak of "substantial factors," while some speak of duty. Moreover, some cases seem to equate responsibility and causation, while others associate state of mind with causation, and state of mind with responsibility. Once again, foreseeability plays a role in most of these cases, but it arises in different parts of the analysis. In short, not only is there no consensus concerning the outcomes of these cases, there is no real agreement as to what the cases are about.

Most interestingly for our purposes, courts have not been inclined to distinguish between causation and enablement in deciding either key-in-the-ignition or social host cases. In other words, courts do not follow Professor Rabin in calling these "enabling torts."⁶⁷ Other than Judge Easterbrook's statement that

62. See *McGuiggan v. New England Tel. & Tel. Co.*, 496 N.E.2d 141, 145 (Mass. 1986).

63. See *Kelly v. Gwinnell*, 476 A.2d 1219 (N.J. 1984).

64. See *Sutter v. Hutchings*, 327 S.E.2d 716, 719 (Ga. 1985) (imposing liability for serving alcohol to intoxicated minor who later causes accident); *Welchel v. Kaing Properties, Inc.*, 378 S.E.2d 478, 484 (Ga. App. 1989) (Beasley, J., concurring) (imposing liability on employer holding a Christmas party from which guests drove drunk and caused accident). We note, however, that foreseeability is not traditionally associated with causation in fact. The Georgia courts never analyze this threshold issue; apparently they assume it.

65. *Kowal v. Hofher*, 436 A.2d 1, 3 (Conn. 1980).

66. See *id.* ("Finally, a moral approach to causation introduces into the formula the perceived nature of the actor's conduct which produced the injury. Responsibility for greater consequences may be considered justified in the case of intentional or reckless conduct rather than for mere negligence.").

67. See Rabin, *supra* note 1, at 440-42.

there is no liability for “setting the stage”⁶⁸ for others to do wrong, causation in fact appears to be assumed by most courts. It is conceivable, however, that at least some of the confusion over these cases is the result of individual variations in how people differentiate conceptually between causation and enablement. The next two Parts of this article look at how people express and understand causation and enablement in everyday English. The article will then present the results of an experiment that examines people’s reactions to both key-in-the-ignition and social host cases.

III

CAUSE AND ENABLEMENT IN EVERYDAY ENGLISH

One question that we investigate in this study is the relationship among people’s judgments concerning contribution, state of mind, and liability. As for contribution, we distinguish among three concepts: contribution generally, causation, and establishing enabling conditions. At the outset, we note that experimental psychologists have found that, at least in clear-cut cases, people can distinguish between causation and enablement when asked to do so. That is, if you were to present people with a key-in-the-ignition case and ask subjects to distinguish between the person who caused the accident and the person who enabled it, they will respond correctly.

For example, in a recent study, Yevgeniya Goldvarg and Philip N. Johnson-Laird presented subjects with the following two stories:

Given that there is good sunlight, if a certain new fertilizer is used on poor flowers, then they grow remarkably well. However, if there is not good sunlight, poor flowers do not grow well even if the fertilizer is used on them.

Given the use of a certain new fertilizer on poor flowers, if there is good sunlight then the flowers grow remarkably well. However, if the fertilizer is not used on poor flowers, they do not grow well even if there is good sunlight.⁶⁹

According to Goldvarg & Johnson-Laird, the sunlight is an enabling condition and the fertilizer the cause of growth in the first story. In the second, their roles are reversed.⁷⁰ When twenty subjects were asked to identify the cause and the enabling condition in a series of stories of this kind, they performed correctly eighty-five percent of the time, demonstrating that people can distinguish between causation and enablement.⁷¹ Similarly, Patricia Cheng and Laura Novick have performed experiments in which subjects distinguish between causes and

68. *Mays v. City of E. St. Louis*, 123 F.3d 999, 1003 (7th Cir. 1997).

69. See Yevgeniya Goldvarg & P.N. Johnson-Laird, *Naive Causality: A Mental Model Theory of Causal Meaning and Reasoning* (unpublished manuscript, Princeton University Department of Psychology) (on file with authors).

70. See *id.* Goldvarg & Johnson-Laird postulate that the two concepts—causation and enablement—have distinct but overlapping meanings. The expression “A caused B” is false just in case A occurred, but B did not. “A enabled B” is true under such circumstances, but is false just in case A did not occur, but B occurred anyway. See generally Philip N. Johnson-Laird, *Causation, Mental Models, and the Law*, 65 BROOK. L. REV. 67 (1999).

71. See Goldvarg & Johnson-Laird, *supra* note 69, at 38-40.

enabling conditions.⁷² While they offer a different explanation for the distinctions that people draw,⁷³ they do not dispute that people actually distinguish between causation and enablement.

There is another way to go about investigating this question. We can ask how speakers of English express causation in everyday speech and then see whether we are comfortable using ordinary causative language to describe situations that describe enablement. That is the approach of this portion of this article.

English speakers typically express causation in two different ways, neither of which uses the word “cause.” Most of the time, the concept of causation is embedded in the meaning of a verb, and we do not even notice that we are speaking of causation at all. Consider the following classic examples from the linguistic literature:

- (1) a. Bill broke the vase.
- b. The vase broke.

Although there has been considerable debate over the years about how we incorporate this alternation psychologically, many linguists believe that in some way, we understand (1)a as meaning something like (2).⁷⁴

- (2) Bill CAUSED the vase to break.

That is, the subject of the transitive verb “break” in (1)a externally causes the event in (1)b. This is a very typical alternation in English. Some other everyday examples include:

- (3) Bill baked a cake. (The cake baked.)
- (4) Bill burned the toast. (The toast burned.)
- (5) Bill opened the door. (The door opened.)

One way of seeing whether people regard an actor as having caused an event is to see whether people use causative verbs to describe the relationship between the actor and the event.

There is a second way to express causation in English. Some verbs do not have the sort of transitive/intransitive alternation that we have just described. The linguists Beth Levin and Malka Rappaport Hovav have suggested that the alternation is most likely when the verb describes “an externally caused eventuality.”⁷⁵ But whether an eventuality is externally caused “is a distinction in the

72. See Patricia W. Cheng & Laura R. Novick, *Causes Versus Enabling Conditions*, 40 *COGNITION* 83 (1991).

73. Cheng & Novick, in keeping with much of the literature, do not posit a conceptual difference between causation and enablement. Rather, they argue that the difference is based on probabilistic judgments that people make, with enabling conditions being more in the background.

74. Much of the discussion in this section relies heavily on BETH LEVIN & MALKA RAPPAPORT HOVAV, *UNACCUSATIVITY AT THE SYNTAX-LEXICAL SEMANTICS INTERFACE* 79-133 (1995).

75. *Id.* at 105. For an interesting set of studies demonstrating the psychological reality of the internal/external distinction, see Gail McKoon & Talke MacFarland, *Externally and Internally Caused Change of State Verbs*, 76 *LANGUAGE* 833 (2000). The distinction was originally made in Carlota S.

way events are conceptualized and does not necessarily correspond to any real difference in the types of events found in the world.”⁷⁶

To illustrate, consider the sentences in (6):

- (6) a. *The gardener bloomed the plant.⁷⁷
 b. The plant bloomed.

There is nothing logical that makes us regard the mechanisms that lead to flowers blooming as internal to the flower, but the mechanisms that lead to doors opening as basically external. Yet that is just how we see things, and it is reflected in the ungrammaticalness of (6)a.

This is not to say that we cannot express the semantic concept of (6)a. We can do this by introducing an additional verb whose whole meaning is causative. This is called the “periphrastic” causative.⁷⁸ In English, we sometimes use the verb “cause” itself but more often we use “make”:

- (7) The gardener made the plant bloom.
 (8) The gardener caused the plant to bloom.

Interestingly, if we hear the periphrastic causative when we are able to express causation through the verb, we assume that something peculiar has happened. Contrast the following:

- (9) a. Bill opened the door.
 b. Bill made the door open.
 c. Bill caused the door to open.

When we hear (9)b and (9)c, we assume that Bill has used some indirect methods or even telepathy, to open the door. Otherwise, the speaker would simply have said, “Bill opened the door.”

Let us apply these linguistic facts to some tort cases. First, consider a prototypical car accident. Bill is driving his car, runs a red light, and strikes a pedestrian, Fred. We can say:

- (10) a. Bill really hurt Fred.
 b. Bill’s carelessness seriously injured Fred.
 c. Bill caused a lot of damage to Fred’s leg.
 d. Bill’s carelessness made Fred go through months of therapy.

Smith, *Jespersen’s “Move and Change” Class and Causative Verbs in English*, in 2 ENGLISH LINGUISTIC AND LITERARY STUDIES IN HONOR OF ARCHIBALD A. HILL: DESCRIPTIVE LINGUISTICS 101 (Mohammad Ali Jazayeri et al. eds., 1970).

76. LEVIN & RAPPAPORT HOVAV, *supra* note 74, at 98.

77. It is a convention in the linguistic literature to use “*” at the beginning of a sentence to designate that a string of words is not grammatical.

78. For an explication of the notion of a periphrastic causative, see LEVIN & RAPPAPORT HOVAV *supra* note 74, at 293 n.3.

Note that we can speak alternatively of Bill or of his negligence as a cause of the accident. This has caused some confusion among legal thinkers.⁷⁹

Now contrast these descriptive possibilities with a situation in which Bill has thoughtlessly left his keys in the ignition, a thief steals the car, drives it recklessly, and hits Fred while Fred is trying to cross the street. We are far less comfortable describing the relationship between Bill and Fred with any of the sentences in (10). We all agree that Bill was negligent, and we may even agree that he should be held responsible. But we are not comfortable using causative language to describe the responsibility.

How would we describe Bill's relationship to Fred in this situation? We might say:

- (11) a. Bill's carelessness led to Fred's injury.
- b. Bill's carelessness was a factor in Fred's injury.
- c. Bill's carelessness enabled/allowed the thief to steal the car, which ultimately led to Fred's injury.
- d. Bill's carelessness contributed to Fred's injury.

Expressions like "led to" and "was a factor in" are more general than causative expressions. We can say that spring leads to summer, but we do not mean spring causes summer. Verbs like "enable" and "allow" are used when there is another force at work at the same time as, or after the enabling event.

Of course, there are circumstances that are ambiguous between causation and enablement. While we can allow the water to drain from the tub by pulling the plug, we can also empty the tub by pulling the plug, and "empty" is a causative verb.⁸⁰ But the fact that we can look at some events both ways does not mean that people cannot distinguish between the concepts in clear cases. It means only that there are borderline cases of closely related concepts.

Although there can be difficult line-drawing issues in distinguishing between the two, the examples presented above suggest that we recognize them as different concepts.⁸¹

Moreover, when we use these expressions, we do not use verbs that directly describe the relationship between Bill and Fred. We speak of "Bill's carelessness," but we do not speak of Bill directly. The closest word in English to describe the relationship is "cost."

- (12) Bill cost Fred three months of his life.

But "cost" is rather limited. We use it only to speak of ways in which we look at Fred's injury as depriving him of some asset. To the extent that we do not re-

79. See Wright, *supra* note 26, at 11-17.

80. For some interesting examples of enablement along these lines, see LEONARD TALMY, TOWARD A COGNITIVE SEMANTICS 504-09 (2000).

81. For discussion of some of the many positions that writers have taken on these issues, see Johnson-Laird, *supra* note 70, and Goldvarg & Johnson-Laird, *supra* note 69. For our purposes, it matters only that people can typically distinguish between causation and enablement in relatively clear cases.

gard his injury in such market terms, "cost" is inappropriate. Where does this leave us? When someone sets the stage for another to cause injury, we typically do not use causative verbs to describe the stage-setter's actions, and we do not use periphrastic causative expressions either. Moreover, we can use expressions of general involvement or enablement, but they apply only to the stage-setter's negligence, not to the stage-setter himself.

On the other hand, when we ask whether someone should be held responsible for a harm, we often think of that person's contribution to the harm, and causation is certainly the most typical type of contribution. In an experimental study, Erich J. Greene and John M. Darley have found, in criminal contexts, that a perpetrator's overall contribution to the outcome of a crime was the most substantial predictor of the degree of punishment subjects wished to impose.⁸² Paul H. Robinson and Darley found that people have nuanced senses of the relationship between causation and blame.⁸³ In one of their studies, they presented subjects with a number of scenarios, including a straightforward murder case, a straightforward attempted murder case in which the victim did not die, and other cases in which the victim did die, in part because of certain intervening events, such as the victim's subsequently being shot by a third party. The law would hold the original defendant in the intervening killer scenario guilty of attempted murder. But experimental subjects found the defendant deserving of just as heavy a penalty as the actual killer in the ordinary murder case and deserving of considerably more punishment than the attempted murderer whose victim did not die.⁸⁴ Barbara A. Spellman's work also associates judgments of causation with outcomes in a probabilistic model.⁸⁵ So it remains an open question whether people will actually make use of the difference between causation and enablement in making judgments about liability, or instead regard enablement as less direct causation on a continuum.

IV

THE EXPERIMENT

In the context of both the law and the language of causation and enablement, we set out to investigate how people relate their perceptions of the degree of contribution of the enabler, the enabler's state of mind, severity of the harm suffered by the accident victim, and measures of liability assigned to the enabler. Subjects were presented with two stories. One involved an individual who left his key in the ignition. The car was stolen, and the thief caused an accident. The second involved a social host who instructed an intoxicated guest to

82. See Erich J. Greene & John M. Darley, *Effects of Necessary, Sufficient, and Indirect Causation on Judgments of Criminal Liability*, 22 *LAW & HUM. BEHAV.* 429 (1998).

83. See PAUL H. ROBINSON & JOHN M. DARLEY, *JUSTICE, LIABILITY AND BLAME: COMMUNITY VIEWS AND THE CRIMINAL LAW* 181-89 (1995).

84. See *id.* at 182-84.

85. See Barbara A. Spellman, *Crediting Causality*, 126 *J. EXPERIMENTAL PSYCHOL: GEN.* 323 (1997).

drive another guest home. The drunk driver got into an accident. We will describe both scenarios in detail.

A. The Experiment

1. Design of the First Story. Subjects (103 beginning law students who had not taken torts) were presented with a story whose core structure is as follows:

On March 11, Joe Barnes had a large party at his house. About 40 guests attended, and there was plenty of good food and drink. At about 10:00 p.m., one of the guests, Susan, complained to Joe that she was not feeling well, and thought she should go home. She had taken public transportation to the party, but asked Joe if someone could drive her home. Joe was happy that Susan wanted to leave. Joe and his wife, Mary, had been having some problems, and Joe knew that Susan had been trying to convince Mary to get a divorce.

The story then went on to describe the accident that ensued. The experiment presented eight versions of the remainder of the story. The italicized sections were replaced with alternative sections, described below. The rest of the story remained constant:

Joe asked the crowd if there was anybody who could drive Susan home. Later, Bill came up to Joe and volunteered. Joe could see that Bill was very drunk, but in the back of his mind, Joe hoped that Bill might cause an accident that would hurt Susan. Joe's house is at the end of a curve on a busy street, where accidents sometimes occur when residents try to enter the roadway. When Bill pulled away from the curve, he didn't see that a car was approaching, and an accident occurred. As a result of the accident, Susan has several bones broken, and some facial injuries, and spends three weeks in the hospital and four weeks at home as an invalid before she is able to return to work. She also experiences considerable pain.

In this version of the story, Joe willfully sent Bill out drunk to drive Susan home, hoping to injure Susan. One quarter of the subjects heard the story as written above with the "willfully" ending. The others heard versions with other states of mind as described below:

(1) Willfully: Joe could see that Bill was very drunk, but in the back of his mind, Joe hoped that Bill might cause an accident that would hurt Susan.

(2) Recklessly: Joe could see that Bill was very drunk, but ignored the risk of an accident because he wanted to get Susan out of his house as quickly as he could.

(3) Negligently: Although Bill's intoxicated state was obvious to those who were talking with him, Joe was busy serving food, and did not notice.

(4) Nonnegligently: Bill was very drunk, but very good at concealing the fact that he had been consuming alcohol. Joe was concerned about allowing someone who has drunk too much to drive, so he asked Bill whether he had been drinking at the party. Bill said that he had not been, and Joe reasonably believed him.

Note that Bill's driving drunk is foreseeable in three of the four versions. In the willful version, it is foreseeable, foreseen, and desired; in the reckless version, it is foreseeable, foreseen, and ignored; in the negligent version, it is foreseeable, but not foreseen; and in the nonnegligent version, it is not foreseeable.

In addition, the story's ending varied. Half heard the story as written above, with severe damages.

(1) Severe Damages: As a result of the accident, Susan has several bones broken, and some facial injuries, and spends three weeks in the hospital and four weeks at home as an invalid before she is able to return to work. She also experiences considerable pain.

But the other half heard the following ending:

(2) Moderate Damages: When Bill pulled away from the curve, he ran into a parked car, causing damages that cost repair bills of about fourteen hundred dollars to fix.

Thus, there were four different states of mind, and two different endings, for a total of eight different versions of the story. Subjects were assigned versions at random, and at least ten subjects responded to each of the eight versions. Respondents read and rated two stories, the social host case described above, and a second case, a key-in-the-ignition story. We imposed two constraints on the version of the second story that the respondents read. Those who heard the severe damages version of one story heard the lower damages ending for the other, and vice versa. Also, if the enabler was described as in one state of mind in one story, he was described as in another state of mind for the other story. Order of presentation of the two stories was varied.

2. *Design of the Second Story.* There were four different beginnings to the story, reflecting the four states of mind as set forth below.

(1) Willful: Jones wanted to get rid of his car in a way that would enable him to claim the insurance on it. He drove it down to a bad neighborhood, in which he had arranged to have an appointment. Car theft by wandering gangs of teenagers was quite common in the neighborhood.

(2) Reckless: Jones had a number of appointments, including one that was in a bad neighborhood. Car theft by wandering gangs of teenagers was quite common in the neighborhood. Jones was aware of this, but was in a hurry, and disregarded the risk that his car might be stolen.

(3) Negligent: Jones had a number of appointments, including one that was in a bad neighborhood. Car theft by wandering gangs of teenagers was quite common in the neighborhood but this didn't occur to him perhaps because he was in a hurry.

(4) Nonnegligent: Jones had a number of appointments, including one with a person who lived in a house way out in the country that Jones could tell was quite isolated. After checking to see that nobody was around, he left his car unlocked, with the keys in the ignition. But unknown to him, there were a couple of teenagers cutting weeds on a nearby country road. They steal the car and take it for a joy ride.

Then, all of the subjects read the following language:

He left his car unlocked, with the keys on a highly visible key chain, dangling out of the ignition as he ran to his appointment. A couple of teenage kids in the neighborhood steal the car and take it for a joy ride.

There were then two endings: one with severe damage, the other with moderate damage:

(1) Severe Damages: Driving dangerously, they swerve into a center lane, and ram an oncoming car. The man in it has several bones broken, and some facial injuries, and spends three weeks in the hospital and four weeks at home as an invalid before he is able to return to work. He also experiences considerable pain.

(2) Moderate Damages: Driving dangerously, they run into the back end of a parked car, causing damage that costs repair bills of about fourteen hundred dollars to fix.

Thus, there were eight versions of the story: four states of mind and two endings.

3. *The Dependent Variable Questions.* After reading the story, subjects were asked to respond to two sets of identical questions. One set was about Joe's responsibility, the other about Bill's. The questions are set forth below.

(1) Contribution Questions.

___ Rate the degree to which X contributed to the harm that occurred.⁸⁶

___ I would say that X made a substantial contribution to the harmful outcome.

___ He was a cause of the harm.

___ He created conditions that enabled the bad outcome to have occurred.

(2) State of Mind Questions.

86. Each answer has a one to seven scale, from strongly agree to strongly disagree.

Which one of the following best fits the state of mind with which the person acted?

Check one response.

- It was this actor's purpose that this harmful outcome come about.
- The actor knew that he was doing something wrong by creating risks of dangerous outcomes, but did it anyway.
- The actor knew there were risks of dangerous outcomes, but recklessly ignored these possibilities.
- The actor was negligent. He did not consider the risks of harmful outcomes, but should have done so.
- The actor acted acceptably. Almost no one in the same situation would have considered the risk of the highly unlikely incident that came about.

(3) Liability Questions. [These questions measured whether the respondents assigned any liability to the enabler.]

A harm has occurred. Do you think that X should have to help pay for the dollar cost of the damages?⁸⁷

Assign a percentage of the damages on the scale below (0% to 100% scale).

The legal system allows you to make harm-doers pay what are called "punitive damages." The purpose of punitive damage awards is to punish people who have acted badly, and to deter other people from acting badly in similar ways. (Since the victim has already been compensated for his losses by the regular damage award, sometimes the punitive damage award goes to a set of charities or some other good purpose.)

- No punitive damages should be assigned to X.
- Punitive damages should be assigned (if so how much). (1-7 scale of mild to severe).

In some instances, if you judge the conduct to be morally offensive enough, you can assign prison terms to the different offenders. For any of the actors, do you think this is one of those cases? Check one of the options below.

- No prison term is appropriate for this actor

87. We asked this question separately from the question of how much the defendant should have to contribute to avoid the implication that we insist subjects regard this as a graded category if they believe it is an all-or-nothing situation. See Sharon Armstrong et al., *What Some Concepts Might Not Be*, 13 COGNITION 263 (1983).

- He should go to prison for a (check one option below)
- Minor sentence (a week)
- For about a year
- For three years
- More

The issues that the experiment was designed to address are (1) the extent to which contribution and causation affect judgments about liability; (2) differences among the various measures of contribution; (3) the effect of whether the story has a severe or moderate ending; and (4) whether people's intuitions differ from story to story.

B. Results

Since the respondents answered questions about two stories, the first story and the answers they gave to it could have affected their answers to the second story. The experiment revealed no such complex effects, and this section reports the analyses of the two different stories without complicating the analysis by considering those effects.

Each story varied along two dimensions: the state of mind of the enabler with respect to bringing about the next steps that lead to the eventual accident and the severity of the accident that ensued. The variations built into the research design were the same; so, in general, the two stories provide replications of each other, and we would expect many of the results to parallel each other. However, the results differ as a function of an important difference between the stories. In the social host story, the host who acted willfully actually wished that the drunk whom he allowed to drive his guest home would get into an accident and harm the guest. In the key-in-the-ignition story, the willful enabler merely hoped that the car would be stolen, not that an accident or injury would occur.

1. Liability of the Enablers. Some base rates are useful to know. In the key-in-the-ignition case, thirty-five percent of the respondents thought that the car owner should make a contribution to the damages the accident caused, seven percent thought that he should pay some punitive damages, and four percent thought some jail time was appropriate.⁸⁸ Those respondents who made the last two judgments were disproportionately from the group that read the version in which the car owner wanted the car to be stolen. In the social host case, fifty-eight percent thought the host should make a contribution to the damages, thirty-six percent considered punitive damages appropriate, and twenty percent thought jail time was in order. Thus, at least in terms of judging an enabler's obligation to contribute compensatory damages, our subjects were

88. We are aware that tort actions do not allow the assignment of jail terms as trial outcomes. We included this possibility here to get a better sense of the degree to which the respondents sought to extract punishments from the enabler.

very much like the judges around the country: Some would impose liability, others would not.

But this basic result leaves two interesting sets of questions. First, to what extent do the subjects distinguish between causation and enablement, and to the extent that they do, how does that distinction contribute to their judgments? Second, what role, if any, do the factors that we manipulated in the experiment—state of mind, degree of contribution, and severity of damage—play in people's judgments?

2. *Causation vs. Enablement.* Examining the interrelationship in response patterns among the various questions about the degree to which the enabler contributed to the negative outcome reveals how respondents thought about the concepts of enablement and causation in general, and more specifically, whether they see the two concepts as essentially similar or make distinctions between them. The simplest way to do this is to examine the numbers of subjects who agreed or disagreed with the assertion that the enabler was a *cause* of the accident and agreed or disagreed with the statement that the person *enabled* the accident. For the key in the ignition case, the correlation between the degree of agreement with the two was $r = .44$, a positive but moderate correlation.⁸⁹ For the social host case, the correlation between the degree of agreement with the two was $r = .62$, a positive, slightly higher, but still moderate correlation. What this means is that the tendency for the average respondent was to answer both the causation and the enablement questions in the same way.

However, a closer view of the data reveals that there were a meaningful number of respondents who disagreed with the statement that the enabler was a cause of the accident, but did think that he enabled it. Tables 1 and 2 show the relationship between answers to the cause and enablement questions for both stories. Each respondent is coded as either agreeing or disagreeing with the enablement and causation questions (for this analysis, respondents who neither agreed nor disagreed with either one of the questions were eliminated). As the tables show, most respondents either agreed that the actor was both a cause and an enabler, or disagreed with both. Notice that in the social host case, the preponderance of these respondents thought the actor both enabled and caused the

89. The "r" statistic is used to measure correlation. Social scientists assess the relationship between respondents' answers to two questions by calculating the correlation coefficient between those questions. The coefficient can vary between +1, -1, and zero. To put this in terms of the present study, a correlation of +1 tells the reader that if respondents judged the enabler to be a major contributor to the accident, they also believed that the enabler must make a maximal contribution to damages. If the correlation had been zero, then there would have been no relation between the respondents' answers to those two questions. In that case, a respondent who thought that the enabler was a major contributor is as likely to assign no damages to the enabler as to assign him major damages. A correlation of -1 indicates that the higher the respondent's answer to one question, the lower his answer to the other. The actual correlation coefficient assesses where the association lies between these two possibilities. Correlations of 0.6 and above are generally considered strong ones, while those between 0.3 and 0.6 are moderate ones. The correlation coefficient squared expresses the amount of variance in one answer that is explained by the answer to the other question. See, e.g., DAVID HOWELL, STATISTICAL METHODS FOR PSYCHOLOGY 239-51 (4th ed. 1997).

accident, while in the key-in-the-ignition case, the preponderance of these respondents thought the actor neither enabled nor caused the accident. This finding suggests that the social host actor is evaluated more negatively than the person who leaves his key in the ignition, a topic to which we will return.

TABLE 1
RESPONDENTS' AGREEMENT WITH CAUSATION AND ENABLEMENT:
SOCIAL HOST CASE

	Caused	
	Yes	No
Enabled		
Yes	31 (40%)	18 (23%)
No	2 (3%)	27 (35%)

TABLE 2
RESPONDENTS' AGREEMENT WITH CAUSATION AND ENABLEMENT:
KEY-IN-THE-IGNITION CASE

	Caused	
	Yes	No
Enabled		
Yes	13 (16%)	37 (45%)
No	1 (1%)	32 (39%)

Notice that in each case, quite a few respondents agreed that the enabler did in fact enable but disagreed that he was a cause of the accident. Twenty-three percent of the respondents in the social host case and forty-five percent in the key case made this judgment. This result suggests that some of the respondents—a minority, but a substantial one—distinguished between enabling and causing.

Those respondents can shed light on the question of whether a person who judges that an actor enabled but did not cause an accident is still willing to assign liability to that actor. Forty-four percent of the “enabling respondents” assigned some monetary liability to the enabler in the social host case, and forty-six percent did so in the key case. In contrast, of those who thought the actor both enabled and caused the accident, ninety percent of the respondents to the social host case, and seventy-seven percent of the respondents to the key case assigned liability. Completing the story, of those who assigned neither enablement nor causality to the actor, only twenty-three percent of the respondents to

the social host case and three percent of the respondents to the key case assigned liability.

Thus, there are two disagreements. Some subjects seemed to treat enablement and causation similarly. Among those subjects, there was relative consensus that there should be no liability if neither is present, and there should be liability if both are. Other subjects distinguish between causation and enablement. Among those subjects, there is considerable disagreement as to whether enablement without causation is good enough to establish liability. Finally, almost nobody believed that the enablers caused, but did not enable, the harm.

3. *The Effectiveness of the Manipulations.* In determining the relevance of contribution and state of mind to judgments of liability, the first task is to examine whether the manipulations that were used had the desired effect on the thinking of the respondents. By and large, they did. Specifically, the respondents had different information relevant to the state of mind of the enabler, and they generally perceived the enabler's state of mind to vary accordingly. The relationship is measured by an analysis of variance that relates the state of mind manipulation to the respondents' perceptions of state of mind, and this was statistically reliable for both of the cases.⁹⁰

Pilot work had shown that the respondents did perceive the differential severity of the accident outcome in both cases, and so we did not ask these respondents to rate severity. In both stories, respondents' judgments about the enabler's state of mind were also affected by the severity of the harms that the accident caused. Specifically, the more severe the harm that occurred, the more liability that the respondents assigned to the enabler. This is not unexpected because within the psychological literature, there is a well-known phenomenon called "hindsight bias."⁹¹ Outcomes that actually come about are seen as having been more predictable. Therefore, the severe harm in stories with the severe outcome is perceived as highly probable and, given what they were told in most of the conditions, foreseeable. A person who contributes to the occurrence of a foreseeable severe harm falls farther below the standard of care required than does one who risks only a lesser harm explaining the general elevation of liability judgments in the severe outcome conditions.

Past research has demonstrated that an observer's perception of an actor's "degree of contribution" to an outcome is a central predictor of the blame and punishment the observer assigns to the actor.⁹² For this reason, the experiment asked respondents about the degree to which they perceived the actor as con-

90. $F_{3,98} = 5.97$, $p < .001$ for the key case and $F_{3,98} = 30.10$, $p < .001$ for the social host case.

91. See Baruch Fischhoff, *Hindsight ≠ Foresight: The Effect of Outcome Knowledge on Judgement Under Uncertainty*, 1 J. EXPERIMENTAL PSYCHOL.: HUMAN PERCEPTION & PERFORMANCE 288 (1975). For a study showing the hindsight effect concerning negligence judgments, see Marylee Karlovac & John M. Darley, *Attribution of Responsibility for Accidents: A Negligence Law Analogy*, 4 SOC. COGNITION 287 (1988).

92. See Greene & Darley, *supra* note 82, at 443.

tributing to the occurrence of the accident. Respondents were asked four questions about the degree to which the enabler contributed to the accident. Causation and enablement were correlated. All four questions elicited answers that showed a general tendency to hang together. Combined into a single scale—the “contribution” scale—the answers had a Cronbach’s Alpha of .86 in the key case and .92 in the social host case.⁹³ This scale will later help predict the liability assignments made to the actors in the scenarios.

On this contribution scale, the manipulation of state of mind of the enabler affected the degree to which he was perceived as contributing to the outcome. The direction of the relationship was as predicted: $r = .21$ for the key case and $r = .34$ for the social host case. The relationship is statistically reliable in both cases: The more the enabler’s state of mind approached intentionality, the greater the contribution he was seen as making to the accident. This, too, makes intuitive sense, and it makes sense that the correlation is stronger in the social host case. In the willful scenario of that case, the social host actually wanted the passenger injured. In the key case, the enabler only wanted the car stolen; he did not want an accident to occur.

4. *Contribution and State of Mind as Predictors of Liability.* The most interesting results are those that link the conduct of the enabler with the various measures of liability that are assigned to that enabler. Two scales in a multiple regression predict the ratings on the three scales measuring the different kinds of liabilities that the respondents assigned to the enabler. The scales were the state of mind scale and the scale of perceptions of the enabler’s degree of contribution to the outcome. The results of three multiple regressions, predicting each of the three measures of liability assigned to the enabler, for each of the two scenarios, are shown in the tables below. In all of the regressions, most of the contributions of both predictors are statistically significant. They predict the various measures of liability at better than chance rates. The total r squared measure gives the percentage of the variance in the liability measures that is accounted for by the multiple regression equations using the two predictors. In each instance, the variance accounted for is what social scientists would consider substantial. The Beta weights⁹⁴ predict the extent to which each manipula-

93. “Cronbach’s Alpha” is a reliability coefficient that measures what proportion of the variance in the test instrument is due to some characteristic that is stable and consistent across the test items. It is a generally accepted measure of the internal consistency of the test items. The fact that Chronbach’s Alpha was this high indicates that subjects were typically consistent in their judgments on contribution, causation, and enablement. See Lee Cronbach, *Coefficient Alpha and the Internal Structure of Tests*, 16 PSYCHOMETRICIA 297 (1961).

94. The Beta weights are the standardized partial regression coefficients. They are “standardized” in that they are expressed in terms of standard deviations on the scales in question rather than raw scores; they are “partial” in that they have eliminated the effects of the correlation between the two predictor variables and thus are conservative estimates of the relationship between predictor variables and contribution or liability scores. For a basic description of coefficient alpha, see ARTHUR ARON & ELAINE N. ARON, *STATISTICS FOR PSYCHOLOGY* 527 (2d ed. 1999) (characterizing the statistic “as describing how much each item is associated with each other item”).

tion predicts the variance in people's liability judgments. The results show that our two manipulations are strong predictors of these judgments.

TABLE 3
REGRESSION ANALYSES FOR THREE MEASURES OF ENABLER LIABILITY
BY CONTRIBUTION AND STATE OF MIND:
SOCIAL HOST CASE

What is predicted	Overall correlation	Adjusted correlation squared	Beta for contribution measure	Beta for state of mind measure
% of damages for social host	.70	.49	.58	.17
Punitive damages	.67	.44	.14	.19
Time in jail for social host	.51	.25	.22	.34

TABLE 4
REGRESSION ANALYSES FOR THREE MEASURES OF ENABLER LIABILITY
BY CONTRIBUTION AND STATE OF MIND:
KEY-IN-THE-IGNITION CASE

What is predicted	Overall correlation	Adjusted correlation squared	Beta for contribution measure	Beta for state of mind measure
% of damages for key leaver	.54	.28	.33	.27
Punitive damages	.29	.07	.29	.01
Time in jail for key leaver	.39	.14	.01	.40

But notice the conceptual difference in the liability measures. The first asked the standard tort question of what contribution, if any, the enabler should make to pay for the damages that ensued from the accident; the third question asked for a liability assignment typical in criminal cases, of jail time; the second question, concerning punitive damages, was between the two.

Given this, it is worth noting the shifting weights put on the two predictors in each of the three liability judgments. Looking first at the key-in-the-ignition

case, the percentage of the damages that the enabler should pay is most strongly predicted by the contribution scale. This seems intuitively sensible. The point here is that a person who contributes to harming another should contribute to paying for the ensuing damages. The pattern is the same for the social host case. As this demonstrates, respondents often judged that the person who negligently enables a harm to occur contributes to that harm and is thus liable for its effects.

Classically, punitive damages are made possible in tort actions to punish the offender for bringing about the harm and are increased as the offender falls farther and farther below the desired standard of care. For punitive damages determinations, the state of mind measure emerges as the slightly stronger predictor. The third measure of liability asked for a jail sentence for the enabler, a more blatantly punishment-focused measure and the one most strongly predicted by the state of mind measure.

5. *The Contribution of the Car Drivers to the Accident and Their Liabilities.* The experiment revealed an interesting and unanticipated inverse relationship between judgments of the enablers' contribution and judgments of the drivers' contribution. A sort of perceptual "hydraulic assignment of contribution" resulted. The more the story readers perceived the enabler to have contributed to the accident, the less they perceived the car drivers to have contributed to it. This result is most easily seen by examining the answers to the question concerning the creation of "the conditions that enabled the bad outcome to occur." For the social host story, the correlation between the rating for the host and the drunk was $r = -.41$, and for the person who left the keys in the car and the teenagers who took the car, $r = -.66$. The degree to which the car drivers, the teenagers in the key-in-the-ignition case, and the drunken party guest in the social host case, were perceived as contributing to the eventual accident predicted the various measures of liability assigned to them. This is shown in Table 5.

TABLE 5
LIABILITY FOR CAR DRIVERS IN BOTH CASES

Case	Liability Ratings for Car Drivers		
	Percent liability	Punitive damages	Jail time
Drunken Guest	.38	.17	.16
Teenagers	.54	.28	.01

No information was given about the state of mind of the teenagers who stole the car, and respondents did not perceive much variation in it. Therefore, it did not significantly predict the liability assignments given to the teenagers. In the social host case, it turns out that some versions of the story provided information about the state of mind of the driver. In one version, he concealed from

the host the fact that he was drunk. Perhaps for this reason, his perceived state of mind predicted the punitive damages assigned to him (.24) and the jail sentence he received ($r = .35$).

6. *Differences between the Willful Scenarios of the Two Cases.* Recall that in the willful version of the social host case, the host hoped that an accident would occur to the person that the intoxicated guest was driving home. We would expect that the former case would generate more liability than the latter case, and this is exactly what happened. For all three of the liability measures, the differences between the liabilities assigned to the two willful cases were statistically reliable. The differences are shown in the following table. For the punitive damages question, the key-leaver is seen as deserving no or very little liability for damages, while the social host is assigned liability for damages at the midpoint of a scale that has severe as its highest value. When the question of time in jail is rated, the modal rating for the key-leaver is no jail time, while the modal rating for the social host is that he should receive a minor sentence of about a week in duration. These differences are quite striking; future research should examine citizens' treatments of enablers who are regarded as desiring a violent outcome.

TABLE 6
LIABILITIES ASSIGNED TO WILLFUL ENABLERS

Liability Ratings for Willful Enablers			
Case	Contribution	Punitive damages	Jail time
Key case	2.44	0.68	0.24
Social host case	4.14	3.31	0.83
T value of difference	T = 2.12, $p < .04$	T = 4.16, $p < .001$	T = 2.27, $p < .03$

These results also shed light on the issue of foreseeability, which plays such a prominent role in the law of torts. Recall that our stories imposed four different states of mind on the enabler, from willful to innocent.⁹⁵ Of these four, the harmful outcome is foreseeable in all but the nonnegligent version. Thus, if foreseeability were the entire explanation for our results, we might expect rela-

95. For the purposes of this analysis, we pooled the liability judgments of respondents who answered either that the enabler "knew he was doing something wrong by creating risks of dangerous outcomes but did it anyway," and the enabler "knew there were risks of dangerous outcomes, but recklessly ignored these possibilities." Comparing respondents' judgments of perceived states of mind as a function of the descriptions we gave them of states of mind indicated some thought that the "knowingly" judgment marked the more culpable of the two options, while others thought that the reckless perception was the more culpable option. This means that future research will be needed to see if the knowingly/recklessly distinction is relevant to liability judgments about enablers.

tively similar (and high) liability judgments for all perceived states of mind except for the innocent ones.

Respondents' judgments involving state of mind and resulting liability are consistent with the distinction made by the foreseeability doctrine but further refine it. For the key-in-the-ignition cases, willful conduct received notably higher liability ratings, with the others tailing off as the blameworthiness of the state of mind decreased. For social host cases, willful and reckless conduct were more or less equally high, with lower amounts of liability thereafter.

Actions taken with the hope that the risked event would actually happen incur high liability assignments, often including a willingness to include incarceration as well as punitive damages. Actions in which the foreseeable outcome was actually considered but the risk still taken generate higher liabilities than do foreseeable but not foreseen outcomes. Consistent with the foreseeability doctrine, foreseeable enabling actions generate higher liabilities than unforeseeable ones. However, once again, responses appear to be graded. As the legal system continues to formulate standards, sensitivity to these distinctions seems most consistent with these results.

V

CONCLUSION

This article began by observing that the law is still in a state of uncertainty about whether to impose liability upon those who enable others to cause injury. The experiment suggests that the source of some of this confusion stems from the cognitive and linguistic practices of ordinary people. While people are able to distinguish between causation and enablement when asked to do so, they often simply look at the two concepts as sufficiently close to act as surrogates for some broader notion of contribution and assign the two concepts in correlated ways. The two concepts are very closely related, both conceptually and logically.⁹⁶

In fact, some languages do not use different vocabulary to describe indirect causation and enablement, although, as we saw in Part III, English typically does. In Dutch, for example, there are two causative words: *doen* (do) and *laten* (let). *Doen* is used to express direct causation, in which nothing intervenes between cause and effect, while *laten* is used to express indirect causation.⁹⁷ Thus, in Dutch, one would say, "The bright sun *doet* (makes) the temperature rise," because the relationship between the sun and the rise in temperature is perceived as direct.⁹⁸ But *laten* is used both in situations in which the intervening

96. See Johnson-Laird, *supra* note 70, at 101 (showing that the logic of causation and enablement are very similar, differing only in how they deal with certain counterfactual situations and that people's mental models of the two are even more similar).

97. For discussion, see Arie Verhagen and Suzanne Kemmer, *Interaction and Causation: Causative Constructions in Modern Standard Dutch*, 27 J. PRAGMATICS 61 (1997).

98. *Id.* at 62. Verhagen and Kemmer present the relevant Dutch data. We have substituted the English here for presentational purposes.

event would be considered enabling and in situations in which the intervening force would be considered causal in English. For example, in Dutch, one would use “*liet*” in both: “she *liet* (allowed) the officer see her drivers license,” and “the sergeant *liet* (had/made) us crawl through the mud.” The determining factor is that “categorization as indirect causation is justified because we had to move under our own power: The sergeant has no direct control over our bodily movements.”⁹⁹

The fact that some languages draw distinctions just the way some of the experiment’s subjects did demonstrates that grouping enablement and causation under a single category is a cognitively available decision.¹⁰⁰ Future work might look systematically at whether the enabler can be seen as having indirectly caused the driver to engage in the dangerous activity. Dutch and English, which are similar languages in many ways, would express this relationship differently, suggesting that it is an area ripe for the exploration of differences in conceptualization.

The literature contains examples of people distinguishing between the two concepts by characterizing enablement as a special kind of causation. Leonard Talmy, a leading scholar in the relationship between language and cognition, refers to “enabling causation” in his chapter on the semantics of causation.¹⁰¹ Greene & Darley refer to “indirect causation.”¹⁰² Courts sometimes use the same expression.¹⁰³

Why would people cluster enablement and causation as a single concept, despite the fact that everyday speech and prior psychological research demonstrate that they routinely distinguish between the two? If people regard contribution, enablement, and causation as surrogates for responsibility, they will be disinclined to find one or more present and at the same time to deny liability, just as they will be disinclined to impose liability having found one or more of these factors absent. Moreover, as discussed above, language tends to distinguish between internal and external causation.¹⁰⁴ It appears, however, that people are not uniform in their conceptions of external causation. Some languages, like English, tend to group direct and indirect external causation, and to distinguish enablement. Others, like Dutch, separate direct external causation and group indirect causation and enablement. Even people who speak the same language appear to divide on this issue.

99. *Id.* at 68.

100. See V.P. Nedyalkov & G.G. Silnitsky, *The Typology of Morphological and Lexical Causatives*, in *TRENDS IN SOVIET THEORETICAL LINGUISTICS* 1, 9-14 (F. Kiefer ed., 1973) (discussing “distant causation”).

101. See TALMY, *supra* note 79, at 504-09.

102. See Greene & Darley, *supra* note 82, at 439-41 (calling enablement “indirect causation”).

103. See, e.g., *Marbled Murrelet v. Pacific Lumber Co.*, 83 F.3d 1060, 1065 (9th Cir. 1996) (referring to habitat modification as an indirect cause of harm for purposes of interpreting the Endangered Species Act).

104. See *supra* text accompanying notes 74-82.

A second problem facing legal thinkers is that people appear to relate the degree of liability to the extent to which they believe that the defendant contributed to the harm, and people differ in how much they believe an enabler contributed. Thus, there were correlations between our measures of contribution and people's judgments about liability. Since people differed extensively in their judgments of contribution, however, they also differed in the degree of liability they assigned to the enabler. Specifically, it seems that citizens would be uncomfortable with a system that assigned full liability to an enabler, although they are sometimes willing to assign considerable liability to the enabler, and often express a desire that the enabler who hopes for the completion of the action be dealt with by criminal punishments. This suggests the need for further empirical investigation on what effects respondents' perceptions of the degree of contribution have on their judgments of liability. Pending that investigation, the results suggest that proportional liability¹⁰⁵ appears to comport more with naïve notions of justice than do all-or-nothing legal rules.

Third, state of mind matters. There is a rough parallel between how citizens think about the liability that should be assigned to the enabler in enabling torts and the role of state of mind in the general assessment of liability for acts of negligent commission. As the legal system continues to formulate how it deals with enablement, it might be useful to import this thinking. Thinking about the enabler's state of mind in terms of a set of categories broader in scope than simply negligent and nonnegligent has credibility with ordinary people. In our experiment, the determination of the legal consequences of an action depended upon whether the enabler's state of mind was willful, reckless, negligent, or nonnegligent. State of mind matters differently, however, depending on whether we are talking about state of mind toward an activity or state of mind toward a harmful outcome. To the extent that the law speaks loosely about state of mind concepts, it does not properly reflect the subtlety of people's judgments about liability and blame, a point made in an important article by Kenneth Simons.¹⁰⁶

Hart & Honoré consider causation a matter of common sense.¹⁰⁷ They may be right if they are contrasting "common sense" formulations of causation with more formal ones. The study suggests, however, that if the word "common" means "agreed on among ordinary language users," then Hart & Honoré are not correct. A better suggestion is that people share judgments about prototypical cases.¹⁰⁸ Here, the prototype is direct causation. For example, the ex-

105. See *supra* text accompanying note 8.

106. See Kenneth W. Simons, *Rethinking Mental States*, 72 B.U. L. REV. 463 (1992). For similar observations concerning state of mind categories in tort law, see Anthony J. Sebok, *Purpose, Belief and Recklessness: Pruning the Restatement (Third)'s Definition of Intent*, VAND. L. REV. (forthcoming 2001).

107. See HART & HONORÉ, *supra* note 28, at 26.

108. Eleanor Rosch's early work on prototypes found the same effect: a great deal of agreement on the most salient cases, with substantial spread on the more questionable ones. See, e.g., Eleanor Rosch, *Cognitive Representations of Semantic Categories*, 104 J. EXPERIMENTAL PSYCHOL. 192 (1975).

perimental results showed a great deal of consensus about the fact that the teens who stole the car and directly caused the harm should be considered liable in the key-in-the-ignition scenario. Consensus deteriorates, however, as we move away from instances of direct causation to enablement, even for those who conceptualize enablement as having elements of causation.

What this means is that courts and writers who rely heavily on their intuitions about notions such as causation and enablement may find that they assert causation or enablement about certain off-prototype cases in which others deny the appropriateness of such labels. This places a burden on the legal system to speak not only in terms of these legal categories of contribution but to provide enough elaboration of their thinking to permit people to converge on their fitting of cases to categories. The experimental results suggest that not only do people have different judgments about the liability of enablers, but they have different conceptualizations about what the enabler has contributed.

Finally, courts and writers also must think about the liability that should be assigned to one who enables an accident in terms of the social values that will be furthered by choosing one liability structure over another. Holding people to an appropriate standard of conduct based on such social values is likely to accord better with community values than technical parsings of causal concepts.