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Causation in Fact in Omission Cases

David A. Fischer**

I. INTRODUCTION

Cause in fact is fundamental to imposing liability in many kinds of civil and criminal actions. The term refers to the causal link between an act or omission and resulting damage or injury. Lawyers, judges, and scholars frequently think of cause in fact as a purely factual question, unaffected by policy issues, that can be resolved adequately under normal burden of proof rules. In contrast, proximate or legal cause rules are explicitly intended to implement policy decisions concerning how far to extend the scope of liability.

In routine cases the determination of cause in fact appears to be simple and factual. For example, when a dry leaf ignites after a spark lands on it, most people would readily agree that the spark was a cause of the fire. However, two situations, omissions creating an intractable proof problem and multiple sufficient causes, create extremely difficult cause-in-fact problems. Courts can solve these problems satisfactorily only by reference to policy; pure factual analysis simply does not provide an adequate answer.

The following hypothetical illustrates the first difficult cause-in-fact situation, the proof problem:

A drunk falls down a stairway. Defendant has negligently failed to light the stairway adequately.

Questions of contributory negligence aside, and even though defendant's negligence is a given, the drunk would have a difficult time proving her case against defendant. Under traditional standards, the drunk must prove by a preponderance of the evidence that bet-
ter lighting would have prevented her fall. This burden is onerous because what would have happened had the stairway been in proper condition is largely a matter of speculation. This proof problem arises frequently in cases involving a tortious failure to take a precaution for the protection of another because many such cases require speculating about what would have happened had the precaution been taken.

The second difficult cause-in-fact situation arises when two or more causes are present, each of which is independently sufficient to produce the resulting harm ("multiple-sufficient-cause" cases). Following is the classic illustration of this situation:

Two fires merge and burn plaintiff's house. Either fire alone is sufficient to burn the house.

Cases like this, that involve actively operating forces concurring in time, do not arise often. While courts have struggled with these cases, they have generally resolved them adequately.

Multiple-sufficient-cause cases involving concurring omissions are another matter entirely. For example:

A product manufacturer fails to put a necessary instruction on a label. The product user fails to read the label. A bystander is injured because of the failure to follow the instruction.

Fact patterns such as this arise with great frequency in tort cases, are devilishly difficult to recognize, and present far greater conceptual problems than do the multiple-sufficient-cause cases involving actively operating concurrent forces. The multiple-sufficient-cause cases involving concurring omissions combine both the demanding proof problems associated with omissions generally and the multi-


4. See Hart & Honoré, supra note 3, at 128.
ple-sufficient-cause problem in its most enigmatic form.\textsuperscript{6} Courts frequently fail to recognize the special problems these cases present.

This Article analyzes the difficulties involved in attributing cause in fact in omission cases, and suggests possible resolutions. Part II discusses the basic concept of causation, and the distinction between acts and omissions. Part III discusses the particular problems that arise in applying causation principles in omission cases. Part IV then analyzes these problems from both corrective justice and economic analysis perspectives. Finally, the Article suggests an approach for solving these complex issues.

II. THE MEANING OF CAUSATION

A. Defining Cause

Cause is a concept that is impossible to define to everyone's satisfaction. Perhaps a cause is best described as something that invariably produces a particular result when all background conditions remain constant. This definition is based on the work of philosopher David Hume.\textsuperscript{6} He believed that human knowledge of causation is derived from observing invariable sequences of events, such as A always following B.\textsuperscript{7} Through such experience it is possible to make causal generalizations and to infer causation about historical events, future events, and hypothetical events.\textsuperscript{8} Professors Becht and Miller believe that causation cannot really be defined, and that "definitions" like the above are simply statements of our general concept of cause.\textsuperscript{9} Nevertheless, they agree that through common sense and experience we are frequently able to

\textsuperscript{5} Another class of cases that presents extremely difficult causation problems involves successive acts or omissions that produce distinct results. For example, \textit{D1} starts a fire that arrives first and burns down \textit{P}’s house and kills \textit{P}. \textit{D2} starts a second fire that arrives three days later. \textit{D2}’s fire would have burned down the house, and killed \textit{P}, if the house had still been standing. Who caused \textit{P}’s loss of earning capacity beyond the first three days? The causation problems presented in these successive-cause cases differ sufficiently from those in concurring-omission cases that they are beyond the scope of this Article.

\textsuperscript{6} See \textit{Hart \& Honoré}, supra note 3, at 14-15 (applying David Hume’s causation theory); Wright, \textit{supra} note 3, at 1789.

\textsuperscript{7} See \textit{Hart \& Honoré}, supra note 3, at 14-15; Wright, \textit{supra} note 3, at 1789.

\textsuperscript{8} See \textit{Hart \& Honoré}, \textit{supra} note 3, at 15; Wright, \textit{supra} note 3, at 1789.

\textsuperscript{9} See ARNO C. BECHT \& FRANK W. MILLER, \textsc{The Test of Factual Causation in Negligence and Strict Liability Cases} 9-10 (1961) ("Causation is . . . undefinable, like the general conception of the color yellow.").
identify causes of events. Thus, we know that a spark touching a dry leaf will cause the leaf to burn. To the extent people agree that causes can be identified in a rational way, it is perhaps unimportant whether they agree that cause also can be defined in a rational way.

Clearly, however, there can never be a single cause of an event. A very complex set of circumstances must be present for any effect to occur. It is misleading, for example, to say that the spark touching the leaf was the cause of the fire; the leaf will not burn in the absence of oxygen or favorable weather conditions. Therefore, the oxygen and the weather conditions are just as much causes of the fire as the spark. According to our definition, the spark is a cause of the fire only in the sense that it will invariably cause the fire if all other necessary conditions are present. Consequently, a cause is best conceived as a necessary element of a complex set of conditions that together bring about a result.11

The sine qua non, or “but-for,” test is the most widely accepted test for determining cause in fact.12 Under this test, an act is not a cause of a harm unless the harm would not have occurred in the absence of the act. This is a test of necessary causation. That is, in order for the act to cause a harm, the act must have been necessary for the occurrence of the harm.

The but-for test is not a definition of “cause” in the sense that it tells us what that word means. Rather, it is a test that is sometimes helpful for determining when cause is present.13 The but-for test identifies those conditions necessary to produce a result. Thus, in the spark example, the oxygen in the atmosphere, the prevailing weather conditions, the moisture content of the leaf, and many thousands of other unspecified conditions were causes of the fire. Each condition was necessary to cause the fire because without any one of the conditions the fire would not have occurred. Taken together, the conditions will “invariably” produce a fire each time they recur.

The but-for test, however, is not a universal test for determining causation. As later illustrated, there are some situations when

10. See id.
11. See HART & HONORÉ, supra note 3, at 17–22, 111–14; Wright, supra note 3, at 1789.
courts attribute cause to a condition even though it was not necessary to produce a result.\textsuperscript{14}

\textbf{B. Acts and Omissions}

In attributing cause to conduct it is useful to distinguish between acts and omissions. An act requires affirmative conduct. An omission is the failure to act. Thus, throwing a lighted coal into the woods is an act. Failing to equip a steam locomotive with a spark arrester is an omission. It can be argued that this distinction is meaningless because, as a matter of semantics, any omission can be characterized as part of a larger encompassing act.\textsuperscript{15} For instance, suppose a railroad operates a steam locomotive without a spark arrester and a spark escapes, causing a fire. It is equally plausible to characterize the railroad's behavior as an act (carelessly operating a locomotive) or an omission (failing to equip a locomotive with a spark arrester). For some purposes it may not matter which characterization is used. For the purpose of ascertaining cause in fact, however, it is important. The proper characterization depends on plaintiff's theory of recovery.\textsuperscript{16}

Courts almost universally require a causal link between the culpable aspect of defendant's conduct and the harm plaintiff suffers.\textsuperscript{17} They recognize that each event has an infinite number of causes, most of which are innocent, and tort liability based on a causal connection between defendant's innocent conduct and the harm in question is unfair.\textsuperscript{18} Therefore, in tort cases, courts require plaintiffs to specify the tortious aspect of defendant's conduct. Assume that plaintiff in the locomotive example sues on a negligence theory, and claims that operating the steam engine was negligent because the engine did not have a spark arrester. Here it is most useful to characterize the case as involving an omission because an omission more clearly specifies the alleged negligence. Plaintiff must then prove that the railroad's omission was careless, and that it caused the resulting fire. To prove causation, plaintiff must show that the fire would not have occurred if the spark arrester had been

\begin{itemize}
  \item \textsuperscript{14} See infra notes 34–37 and accompanying text.
  \item \textsuperscript{15} BECHT & MILLER, supra note 9, at 178–79; HART & HONORÉ, supra note 3, at 138–39; Leon Green, The Causal Relation Issue in Negligence Law, 60 MICH. L. REV. 543, 546–47 (1962).
  \item \textsuperscript{16} See BECHT & MILLER, supra note 9, at 179; HART & HONORÉ, supra note 3, at 138–39.
  \item \textsuperscript{17} Wright, supra note 3, at 1759.
  \item \textsuperscript{18} See BECHT & MILLER, supra note 9, at 12–13.
\end{itemize}
in place. However, if plaintiff can prove that operating the steam
engine was negligent regardless of whether it had a spark arrester,
then it is most useful to characterize the case as involving an act.
Thus, for the purpose of determining causation, plaintiff's theory of
recovery governs whether plaintiff should characterize defendant's
conduct as an act or omission.

Characterizing defendant's conduct as an act or an omission
identifies which aspect of defendant's conduct the trier of fact must
evaluate to determine both culpability and causation. However, this
characterization is not controlling for all purposes. Alleging an
omission for the purpose of determining culpability and causation,
for example, would not control the question of whether defendant
was guilty of misfeasance or nonfeasance when ascertaining wheth-
er defendant had a duty to protect plaintiff.

The act/omission distinction would be insignificant if the causa-
tion inquiry merely involved ascertaining whether any aspect of
defendant's conduct caused plaintiff's harm, as Dean Leon Green
advocated. Dean Green argued that plaintiff should not have to
prove a causal connection between the tortious aspect of defendant's
conduct and plaintiff's harm. 19 He believed that the causal inquiry
should be limited to whether any aspect of defendant's conduct
caus ed the harm. 20 He would use duty to limit the scope of liability.
Thus, in the locomotive example, if plaintiff alleged defendant negli-
gently operated the engine without a spark arrester, Dean Green
would find causation if the locomotive caused the fire regardless of
whether the spark arrester would have made a difference. His in-
quiry would then be limited to whether defendant owed plaintiff a
duty of care. Dean Green would advocate the same approach even
when operating the locomotive without the spark arrester is the
only plausible theory of negligence. If courts accepted Dean Green's
position, the distinction between acts and omissions would no longer
be important for the purpose of attributing causation in fact. How-
ever, so long as courts continue to reject this view, as most have,
the distinction remains useful.

The definition of cause as a thing that invariably produces a
result applies to omissions as well as acts. 21 This is true if the
omission is viewed as a necessary element of the set of actual con-
ditions sufficient to produce the result. Thus, when a locomotive without a spark arrester produces an escaping spark that lands on a leaf and causes a fire, the failure to contain the escaping spark is obviously a cause of the fire. Every time the relevant circumstances are duplicated in exact detail, the failure to contain the escaping spark will invariably cause an identical fire.

C. The Proof Problem

The but-for test uses both "hypothetical and counterfactual analysis." That is, the but-for test assumes a state of affairs that does not exist and asks what would have happened under imagined circumstances. This applies to both acts and omissions, but the hypothetical nature of the but-for inquiry for acts differs inversely from the but-for inquiry for omissions. Determining whether an act caused something requires hypothesizing an omission. Determining whether an omission caused something requires hypothesizing an act. In the case of omissions, however, the inquiry is one or more steps further removed from reality. To illustrate, assume the issue is whether a spark-spewing steam locomotive caused a brush fire near the train tracks. The following two questions must be resolved:

(1) Did a spark from the locomotive land on the plant that first caught fire?
(2) If so, did the spark start the fire?

Resolving the second question under the but-for test involves deciding hypothetically whether the fire would have occurred in the absence of the spark (i.e., would the fire have occurred if defendant had not operated the locomotive on that occasion). If the alleged act of negligence were that the railroad should not have operated the steam locomotive on that occasion because of dangerous weather conditions, the causal inquiry would be limited to the above two questions. That is, determining whether an act (operating a steam locomotive) caused the harm requires hypothesizing a fictitious omission (what would have happened if the steam locomotive had not been used).

Omission cases require an additional inquiry by hypothesizing the occurrence of a fictitious act. Assume the alleged negligence is the failure to equip the steam locomotive with a spark arrester. Determining whether this omission caused the fire requires resolv-

ing questions one and two above. In addition, however, a third ques-
tion must be resolved:

(3) Would a spark arrester have prevented the escape of the spark
that landed on the plant?

Resolving question three under the but-for test requires deciding
hypothetically whether the fire would have occurred if the railroad
had placed a spark arrester on the engine. This decision requires us
to imagine what would have happened had the spark arrester been
in place.

None of these questions is inherently more difficult to resolve
than the others. If spark arresters are very efficient, screening out
99.9% of all sparks, then question three is easy to resolve. If spark
arresters are crude devices, screening out only 70% of all sparks,
then question three is much more difficult. By the same token,
questions one and two are easy to resolve if an eyewitness is avail-
able to testify that the sparks from the train fell on a leaf that
caught fire shortly thereafter. However, if the only evidence is that
a fire broke out shortly after the train passed, and there were other
sources of sparks in the area at the time, questions one and two are
very difficult to resolve.

Professors Becht and Miller reject the but-for test in cases
involving actively operating forces. They claim that the trier of
fact can trace the sequence of events initiated by actively operating
forces, and determine causation without reasoning hypothetically.
Becht and Miller agree, however, that in the case of omissions the
only way to determine cause is to reason hypothetically.

The hypothetical and counterfactual nature of the but-for test
often creates the proof problem. There are two reasons why proof
problems are particularly difficult in omission cases. First, as dem-
onstrated above, to determine whether an omission caused a result
requires adding one or more hypotheses to the chain of reasoning to
resolve but-for causation. In the above example, questions one and
two determine what actually happened (i.e., whether the physical
forces in question produced the result). These questions must be
resolved in every case. When plaintiff's claim is based on an omis-

23. See BECHT & MILLER, supra note 9, at 13–17, 21–25, 122–23, 139–41 (il-
ustrating futility of reasoning hypothetically). Hart and Honoré disagree with Becht
and Miller's position. HART & HONORÉ, supra note 3, at lvii.
24. BECHT & MILLER, supra note 9, at 33.
25. Id.
26. See supra text accompanying note 2 (illustrating proof problem).
sion, however, additional questions must be answered. Generally, as more and more hypotheses are added, proof of causation becomes more and more problematic. Suppose, for example, the victim of the fire in the locomotive example sues the manufacturer of the locomotive for negligently failing to warn the railroad of the necessity of equipping the locomotive with a spark arrester. This would necessitate a fourth inquiry:

(4) Would the railroad have read the warning and heeded the warning by installing a spark arrester?

Extreme cases arise requiring the resolution of even more hypotheses to determine causation in fact. Courts sometimes deny recovery in such cases because the hypothetical question becomes so speculative that proof of causation is simply impossible. Clearly, adding hypothetical questions makes resolving causation more difficult. Thus, using an omission theory always adds to the difficulty of proving causation.

The failure-to-warn example also depicts the second reason the proof problem is particularly difficult in omission cases. Many cases involving tortious failure to take a precaution for another's protection require determining how a human being would have reacted if the precaution had been taken. Such inquiry, however, is often highly speculative. The questions presented in failure-to-warn cases are whether, if a warning had been given, the user would have read it and taken precautions in response to it, and whether the precautions would have prevented the accident. However, when information necessary for the safe use of a product is not provided, and the product injures a user or bystander, one can often only guess whether providing the information would have changed the product

27. See HART & HONORÉ, supra note 3, at 417–18 (recounting Newsome v. Western Union Telegraph Co., 69 S.E. 10 (N.C. 1910), which rejected as too speculative argument that whiskey shipment delay caused lumberjacks to stop working). In Zepik v. Tidewater Midwest, Inc., 856 F.2d 936 (7th Cir. 1988), plaintiff sued a product manufacturer for violating the Consumer Product Safety Commission (the “Commission”) rule requiring the manufacturer to report information concerning a product defect to the Commission. The court held that to prove the causal link between the violation and the injury, plaintiff needed to show that (1) defendant failed to apprise the Commission of information it did not already have; (2) if the manufacturer had filed its report, the Commission would have determined that there was a defect and would have taken action to protect people from it; (3) the Commission would have acted in time to prevent plaintiff's injury; and (4) the Commission's action would have prevented plaintiff's accident. The court held that this causal chain was "too attenuated and speculative to satisfy generally applicable standards of causation in fact." Id. at 942–43.
user's conduct and avoided the accident. In some cases the user dies or otherwise becomes unavailable to testify regarding what would have happened had an adequate warning been given. Even when the user is available, testimony that the user would have seen, read, and followed an adequate warning is often unreliable because it is self-serving and based on post hoc speculation. Some courts exclude testimony of this kind.

In fact, a court's resolution of these post-hoc-speculative proof problems actually is a question of policy. When an omitted precaution was designed to prevent the type of accident that occurred, courts often relax plaintiff's burden of proof, and permit plaintiff's claim to reach the jury despite weak evidence. Another approach affords plaintiff the benefit of a rebuttable presumption that the omitted precaution would have prevented the harm.

D. Multiple Sufficient Causes

The but-for test adequately identifies the causes of an event in most cases because there is generally only one set of actual conditions sufficient to produce the result. In most cases each condition within the set is necessary to produce the result. In some cases, however, there are two sets of actual conditions sufficient to produce the result.

The but-for test is inadequate when two actively operating forces are independently sufficient to produce the harm, but defen-

29. See, e.g., Kloepfer v. Honda Motor Co., 898 F.2d 1452, 1459 (10th Cir. 1990)(excluding testimony that plaintiff would have obeyed proper all-terrain-vehicle warning); Messenger v. Bucyrus-Erie Co., 507 F. Supp. 41, 42-43 (W.D. Pa. 1980)(excluding plaintiff's testimony that had there been a sounding bell and light on crane plaintiff would have avoided accident), cert. denied, 455 U.S. 944 (1982); Van Dike v. AMF, Inc., 379 N.W.2d 412, 415 (Mich. Ct. App. 1985)(excluding plaintiff's testimony that if trampoline label had said "WARNING" instead of "CAUTION" plaintiff would have seen it).

In the related context of medical malpractice informed consent cases, Professors Twerski and Cohen argue that the question of what decision the patient would have made, had sufficient information been provided, is so speculative as to be nonjusticiable. Aaron D. Twerski & Neil B. Cohen, Informed Decision Making and the Law of Torts: The Myth of Justiciable Causation, 1988 U. ILL. L. REV. 607, 646.

30. BECHT & MILLER, supra note 9, at 86; HART & HONORÉ, supra note 3, at lxxi, lxv—lxvi, 413.
31. See BECHT & MILLER, supra note 9, at 86; HART & HONORÉ, supra note 3, at 413.
32. HART & HONORÉ, supra note 3, at 413–14.
dant is responsible for only one. The well-known twin-fires cases illustrate this problem. In these cases defendant negligently lights a fire. The fire merges with another fire, and the merged fire then burns plaintiff's house. Each fire belongs to a set of actual antecedent conditions that includes such things as the prevailing weather conditions and the presence of oxygen in the atmosphere, but does not include the other fire. While each set of conditions is sufficient to burn plaintiff's house, neither is necessary. Under the but-for test, defendant can claim his fire was not the cause of the harm because the other fire would have burned plaintiff's house even without defendant's fire. The person who started the other fire can make the same argument. Had it not been started, the house would have burned anyway because of defendant's fire. In other words, under the but-for test, neither fire caused the house to burn. This result occurs because each fire is independently sufficient to produce the result but neither fire is necessary.

In cases of this sort, courts are faced with a question of policy. They can retain the necessary cause requirement and exonerate the wrongdoer. Alternatively, they can dispense with the necessary cause requirement, and impose liability on the basis that defendant's conduct simply was sufficient (in conjunction with the surrounding circumstances) to produce the result.

In cases involving acts rather than omissions, courts recognizing the multiple-sufficient-cause problem have generally abandoned the but-for test of causation. Instead, they hold each wrongdoer liable for conduct constituting a "substantial factor" in producing the harm. Other courts use somewhat different language and im-


34. Other examples of actively operating forces as multiple sufficient causes include: either of two wounds separately inflicted on decedent is sufficient to cause his death, see Wilson v. State, 24 S.W. 409, 410 (Tex. Crim. App. 1893); People v. Lewis, 57 P. 470, 471, 473 (Cal. 1899); the noise and smoke from either of two motorcycles is sufficient to cause a horse to take fright, see Corey v. Havener, 65 N.E. 69, 69 (Mass. 1902); and either defendant's malpractice or plaintiff's arteriosclerosis is sufficient to cause plaintiff's gangrene, see Kyriss v. State, 707 P.2d 5, 9–12 (Mont. 1985).

35. HART & HONORE, supra note 3, at lxv–lxvi.

36. See, e.g., Anderson, 179 N.W. at 49 (holding railroad liable when railroad negligently set one fire and other fire was of innocent origin); Kyriis, 707 P.2d at 8 (holding doctor liable for medical malpractice even when pre-existing arteriosclerosis would have required amputation); see also RESTATEMENT (SECOND) OF TORTS § 432(2)(1965)(adopting substantial-factor test); Malone, supra note 3, at 89 (noting substantial factor is prerequisite to reaching jury); Wright, supra note 3, at 1781–84.
pose liability on any actor that "contributed" to the harm. There are two reasons for using these alternative tests instead of the but-for test. First, the but-for test, as applied to this situation, seems to reach the wrong result. People reject the but-for test's result (i.e., that neither of the twin fires caused the harm) because they intuitively believe that both fires in fact contributed to the destruction of the house. Second, the but-for test frustrates corrective justice considerations. Imposing liability avoids the unfairness of using the test's cold logic to exonerate an identified wrongdoer at the expense of the innocent victim.

Some older authority has resolved the policy question of whether to retain the necessary cause requirement differently. It suggests that in multiple-sufficient-cause cases, in which one cause is innocent in origin and the other is culpable, the but-for test should exonerate the wrongdoer because the harm would have occurred even in the absence of the culpable act. Therefore, the wrongdoer has not made the victim worse off. This authority would impose liability only if both causes involved culpable conduct. In dual culpability cases, the policy of preventing each wrongdoer from hiding behind the negligence of the other prevails, and both wrongdoers would be held liable. However, the weight of modern authority rejects the innocent/culpable origin distinction, and holds a wrongdoer liable without regard to the culpability of the other party.

Modern courts attempt to avoid the multiple-sufficient-cause dilemma by using a substantial-factor jury instruction. However,

(37. See, e.g., Lewis, 57 P. at 473 (finding gunshot wound contributed to decedent's death); Corey, 65 N.E. at 69 (holding both motorcyclists liable when each contributed to horse taking fright); Wilson, 24 S.W. at 410 (concluding both head injury and stab wound "contributed materially" to decedent's death).

38. JOHN G. FLEMING, THE LAW OF TORTS 173 (6th ed. 1983); see also Malone, supra note 3, at 89-92 (illustrating inherent unfairness of but-for test in multiple-sufficient-cause cases); Wright, supra note 3, at 1793 (providing examples of unfair but-for results).

39. See, e.g., Kyriss, 707 P.2d at 7-8 (illustrating court's reluctance to relieve wrongdoer of culpability).

40. E.g., Cook v. Minneapolis, St. P. & S. Ste. M. Ry., 74 N.W. 561, 566 (Wis. 1898); Robert J. Peaslee, Multiple Causation and Damage, 47 HARV. L. REV. 1127, 1130-31 (1934); Williams, supra note 12, at 76.

41. See, e.g., Kyriss, 707 P.2d at 8 (holding doctor liable for medical malpractice even though patient's pre-existing arteriosclerosis was substantial factor); 4 HARPER ET AL., supra note 1, § 20.3, at 116; Charles E. Carpenter, Concurrent Causation, 83 U. PA. L. REV. 941, 945-46 (1935)(maintaining innocent/culpable origin distinction is tenuous).
"substantial factor" has not been defined in a meaningful way. In cases not involving multiple sufficient causes, conduct cannot be a substantial factor in causing a result unless it was necessary to produce the result. In multiple-sufficient-cause cases, however, but-for causation is not required, and courts simply leave to the jury, without further definition, the question of whether the conduct was a substantial factor. Courts therefore permit juries to infer causation through common sense without significant guidance.

Because the substantial-factor test is undefined in multiple-sufficient-cause cases, it permits the jury to decide the cause-in-fact question in any fashion it chooses. For example, using the approach suggested by Professors Becht and Miller, the jury could trace the chain of events and determine whether those events contributed to the harm. In other words, the jury could decide what actually happened without speculating about a fictitious chain of events. In the twin-fires hypothetical, the jury could trace the spread of the fire from defendant's property to plaintiff's house and determine whether defendant's fire contributed to the destruction of the house.

Further adding to the substantial-factor test's indefiniteness is its dual nature. Besides being a test for determining cause in fact, it is also used to determine proximate cause. It permits the jury to find that a but-for cause is not a substantial factor because reasonable people would regard it as insignificant. For example, if defendant threw a lighted match into a forest fire, the jury could find that defendant's contribution to the fire was not substantial even though it was sufficient, without the existing fire, to produce the harmful result. The dual functions of the substantial-factor test may often make it impossible to determine whether a finding of no substantial factor is based on lack of cause in fact or lack of proximate cause.

42. HART & HONORÉ, supra note 3, at 124.
44. See supra notes 23–25 and accompanying text (summarizing Becht and Miller's rejection of hypothetical reasoning in determining causation).
45. See RESTATEMENT (SECOND) OF TORTS § 431 cmt. a, at 433.
46. See id.
47. WILLIAM L. PROSSER ET AL., CASES AND MATERIALS ON TORTS 281 (8th ed. 1988); cf. Kingston v. Chicago & N.W. Ry., 211 N.W. 913, 915 (Wis. 1927) ("It is also conceivable that a fire so set might unite with a fire of so much greater proportions, such as a raging forest fire, so as to be enveloped or swallowed up by the greater holocaust, and its identity destroyed, so that the greater fire could be said to be an intervening or superseding cause.").
However, the substantial-factor test’s dual nature makes it uniquely well suited to resolving difficult cause-in-fact problems in omission cases. As illustrated later, certain omission cases can be resolved only by referring to policies closely analogous to those underlying proximate cause. It is often desirable to submit these cases to the jury under the substantial-factor test.

Certain prominent writers, namely, Wright, Hart, and Honoré, have suggested another test for determining cause in fact: the “necessary element of a sufficient set” (“NESS”) test. They claim that the but-for test of causation is an adequate vehicle for determining causation in ordinary cases, but it breaks down in difficult cases, such as those involving multiple sufficient causes.

The NESS test incorporates the concept of necessity (but-for causation) but subordinates it to the concept of sufficiency. Under this test “a particular condition was a cause of (condition contributing to) a specific consequence if and only if it was a necessary element of a set of antecedent actual conditions that was sufficient for the occurrence of the consequence.” This test would resolve the twin-fires hypothetical by finding that both fires caused the harm because “[e]ach fire was necessary for the sufficiency of a set of actual antecedent conditions that did not include the other fire.”

Professor Wright differs with Hart and Honoré on one point. Wright would not require that each factor, when combined with the set of antecedent actual conditions, be independently sufficient to cause the result. Thus, in the twin-fires hypothetical, if the first

48. See infra part IV.
50. HART & HONORÉ, supra note 3, at xlviii, lxv–lxxi, 123, 128 n.33; Wright, supra note 3, at 1792–93.
51. Id. at 1790.
52. Id. at 1791.
53. Id. at 1792.
54. Id. Professor Kelman analyzed this extension of the NESS test and found it to be “hopelessly vague,” “manipulable,” and “conceptually unacceptable.” Mark Kelman, The Necessary Myth of Objective Causation Judgments in Liberal Political Theory, 63 CHI.-KENT L. REV. 579, 603–04 (1987). Professor Wright responded to this criticism in Wright, Pruning the Bramble Bush, supra note 49, at 1035–39.
fire was large enough to cause the harm by itself and the second fire was too small to cause the harm by itself, the second fire is still a cause of the harm under the NESS test because

[i]t was necessary for the sufficiency of a set of actual antecedent conditions which included another fire (the first) that was "at least large enough to be sufficient for the injury if it merged with a fire the size of the second fire." The sufficiency of this set is not affected by the fact that the first fire was so large that it would have been sufficient by itself.55

III. CONCURRING OMISSIONS

In addition to cases involving two active forces, the multiple-sufficient-cause problem can appear in cases involving two tortious omissions. A classic illustration follows:

C, an automobile rental company, negligently fails to discover and repair the defective brakes on one of its cars. C rents the car to D who negligently fails to apply the brakes in time to avoid an accident in which Pedestrian is injured.56

In Pedestrian’s action against C, C can argue that under the but-for test its negligence did not cause the harm. Even if C had repaired the brakes, the accident would have happened because D failed to apply the brakes. D, of course, can make a similar argument in Pedestrian’s action against him. Even if D had applied the brakes the accident would have happened because the faulty brakes would not have stopped the car. This anomalous result occurs here for the same reason as it does in cases involving two active forces. The but-for test requires necessary causation, and neither omission was a necessary condition of the accident because both omissions were independently sufficient to cause the accident.

Another class of concurring-omission cases also presents the multiple-sufficient-cause problem. These cases involve a negligent and a non-negligent omission, each sufficient, but neither necessary, to produce the harm. New York Central Railroad v. Grimstad provides an example. In Grimstad, the owner of a barge failed to equip it with life buoys. The captain, who could not swim, fell overboard

55. Wright, supra note 3, at 1793.
56. This hypothetical is based on Saunders System Birmingham Co. v. Adams, 117 So. 72 (Ala. 1928).
57. 264 F. 334 (2d Cir. 1920); see also Ford v. Trident Fisheries Co., 122 N.E. 389, 390 (Mass. 1919)(concluding better lifesaving facilities would not have saved rapidly sinking decedent).
in calm waters and sank below the surface before shipmates could throw him a buoy. The barge owner's failure to equip the barge with a life buoy was not the but-for cause of the captain's death because even had a buoy been thrown, the captain would not have been able to grab it because he was below the surface. Likewise, the captain's failure to tread water long enough to be rescued did not cause his death because even had he stayed afloat longer, there was no life buoy to throw to him.

These omission cases present the cause-in-fact problem in its most difficult form. Courts and scholars have struggled with such cases for years, sometimes reaching contradictory results in apparently indistinguishable cases. This disparate treatment may be justified theoretically, or, alternatively, it may reflect a failure to recognize the presence of the multiple-sufficient-cause problem. The next section explores these possibilities, first discussing relevant case law, then the scholarly commentary.

A. The Case Law

Courts have been inconsistent in dealing with concurring omission cases. In several older cases involving successive omissions, courts exonerated the first omitter on the basis that the first omitter did not cause the harm. None of these cases appear to recognize the existence of a multiple-sufficient-cause problem. In *Saunders System Birmingham Co. v. Adams*, the Alabama Supreme Court held that when an automobile lessor negligently rents a car with bad brakes to a driver who negligently fails to apply them, the lessor is not liable to the injured pedestrian because the lessor's negligence did not cause the accident. Likewise, in *Rouleau v. Blotner*, the New Hampshire Supreme Court held that a driver's negligent failure to signal before turning in front of an oncoming car was not the cause of the accident when another driver ran into the oncoming car without looking. In *Weeks v. McNulty*, the Tennessee Supreme Court held that negligent failure to furnish a hotel with a fire escape was not the cause of decedent's death when decedent could not have used it. In *New

58. 117 So. 72 (Ala. 1928).
59. Id. at 74.
60. 152 A. 916 (N.H. 1931).
61. Id. at 916.
62. 48 S.W. 809 (Tenn. 1898).
63. Id. at 812.
York Central Railroad v. Grimstad, the case in which the barge captain drowned before a life buoy could be thrown, the court held that defendant's failure to provide the buoy was not actionable because there was no evidence to show that a buoy could have saved the drowning captain.

Some courts presented with omission cases have recognized the multiple-sufficient-cause problem. In Kitchen Krafters, Inc. v. Eastside Bank, plaintiff sued defendant bank for loss of business allegedly stemming from the bank's breach of a fiduciary obligation to disclose information. The bank argued there was no causation because the loss would have occurred anyway due to a poor economy. The court found the case analogous to the twin-fires cases in that a jury could find that both the failure to disclose and the poor economy were sufficient to cause the loss. Therefore, the court concluded that the but-for test should not be used because it was impossible to satisfy. Instead, the case was submitted to the jury with a substantial-factor instruction.

The multiple-sufficient-cause problem arises with surprising frequency in product liability failure-to-warn cases. In these cases some courts recognize the multiple-sufficient-cause problem, and others appear not to. Failure-to-warn cases fall into two categories. In the first category, plaintiff's injury results from consuming successive products, sold without appropriate warnings, and each is independently sufficient to cause the harm ("successive-consumption" cases). An example of this type of case is Basko v. Sterling Drug, Inc. In Basko, the facts warranted a finding that plaintiff experienced retina damage as a result of taking two drugs, either of which could have caused the damage by itself. Defendant manufactured both drugs. Plaintiff took the first drug between 1953 and 1957. In marketing the first drug, defendant was not negligent in failing to warn because the danger of retina damage was not scientifically knowable until after 1957, when plaintiff no longer took the drug. However, defendant's failure to warn, in marketing the second drug, which plaintiff took between 1959 and 1961, was negligent.
The trial court instructed the jury in terms of but-for causation,\textsuperscript{71} and the jury found for defendant. The United States Court of Appeals for the Second Circuit reversed, holding that the case was analogous to the twin-fires case. The court concluded that the but-for test did not work in this case because it involved two independent forces merging to produce a result that either alone would have produced. Instead, the jury should have been instructed in terms of the substantial-factor test of causation.\textsuperscript{72}

Another case falling into the successive-consumption category is \textit{Cipollone v. Liggett Group, Inc.}\textsuperscript{73} In \textit{Cipollone}, defendant failed to provide adequate warning about the dangers of smoking. Mrs. Cipollone started smoking defendant's cigarettes in 1942, and died from cancer in 1984. Defendant's pre-1966 failure to warn was actionable under state law. The post-1966 failure to warn was not actionable because the state cause of action was federally preempted. Either omission might have been sufficient to cause plaintiff's cancer. The court rejected defendant's argument that plaintiff must prove the pre-1966 failure to warn was a but-for cause of the cancer. This would, of course, be impossible if the post-1966 smoking was sufficient to cause the disease. By analogy to the twin-fires case, the court held plaintiff only had to prove that the first failure to warn was a substantial factor in causing the cancer.\textsuperscript{74}

A second category of failure-to-warn cases consists of those in which either an inadequate warning was given and the user did not read it, or in which no warning was given but it appeared the user would not have read and followed a warning had one been supplied ("failure-to-read" cases). The following example illustrates this category:

Manufacturer produces motor homes. The lug nuts on the wheels of one of its models must be tightened to a specific torque (tightness) to avoid the risk that the lug bolts will shear, causing the wheels to come off. Manufacturer provides an owner's manual with each vehicle containing a number of warnings and instructions, but it omits to warn and instruct about the lug nuts. Buyer purchases one of these motor homes, but does not read the owner's manual. Buyer operates the vehicle with the lug nuts tightened too much. The bolts on a front wheel shear, causing the wheel to come off.

\textsuperscript{71} \textit{Id.} at 429 n.14.
\textsuperscript{72} \textit{Id.} at 430.
\textsuperscript{74} \textit{Cipollone}, 893 F.2d at 560–62.
The vehicle enters the wrong lane of traffic, crashes into another car, and injures Passenger, who is riding in the car.

Under the but-for rule, Passenger will lose in a suit against Manufacturer for failure to warn. Manufacturer will argue that even had it warned, the accident would have happened because Buyer did not read the manual. On the other hand, if Passenger sues Buyer, Buyer will similarly argue that even had Buyer read the owner’s manual, the accident would have happened since the manual contained no information about maintenance of the lug nuts. This second category must be distinguished from cases in which the user does not read the label because the warning is not sufficiently prominent to catch her attention. These latter cases do not present a multiple-sufficient-cause problem because a sufficiently prominent warning would have prevented the accident.

In this second category of cases, involving a manufacturer’s failure to warn or instruct adequately, and a user’s (or learned-intermediary’s) failure to read the label or owner’s manual, courts have not recognized the presence of the multiple-sufficient-cause problem. Courts resolve these cases in a number of ways.

One line of cases requires plaintiff to show that a proper warning would have prevented the accident by altering the user’s behavior. These cases exonerate the manufacturer on the ground that the failure to warn did not cause the accident because the warning was not read. Some cases appear to do so on the basis of the but-for

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75. The same problem arises in cases in which the user who failed to read the instructions is also the injured person. However, the preceding hypothetical in which the bystander was injured better illustrates the cause-in-fact problem because it separates questions of contributory negligence and assumption of risk from questions of cause in fact.

The multiple-sufficient-cause problem also arises in the learned-intermediary context; for example, when a doctor prescribes a prescription drug. In these cases courts usually hold that the drug company has a duty to warn the doctor who prescribes the drug rather than a duty to warn the patient who consumes it. The multiple-sufficient-cause problem arises when the doctor does not read an allegedly inadequate warning provided by the drug company.

test. 77 Others find, without analysis, that the accident was caused by the failure to read the label or manual. 78 They do not appear to recognize that application of the but-for test does not support this result.

In Safeco Insurance Co. v. Baker, 79 for example, a manufacturer sold a prefabricated fireplace with unreasonably confusing installation instructions. The manufacturer wrote an addendum clarifying the instructions, but failed to provide it to the buyer. The buyer hired a carpenter with a sixth grade education to install the fireplace. He installed it improperly without reading most of the instructions provided; and the improper installation caused a fire in the buyer's home. The buyer sued both the manufacturer and the carpenter. The court held the manufacturer not liable for failing to provide the addendum to the instructions. It ruled that the absence of the clarifying instructions did not cause the accident since the carpenter would not have read them. 80 Instead, the court held the carpenter liable on the theory that his failure to read the inadequate instructions caused the fire. 81

In this line of failure-to-read cases, plaintiff most often is the user who failed to read the label or manual. The court's analysis, however, is the same in cases in which a third party is injured and cases in which a learned intermediary failed to read the warning. Thus, in cases in which plaintiff is the user who failed to read the label, the claim is effectively barred because the only tortfeasor, the manufacturer, cannot be sued. In cases in which the plaintiff is a third person, suit is barred against the manufacturer, but recovery may be available against the negligent user.

While this treatment might be justified by policy concerns, it clearly cannot be explained as a necessary result of applying either

77. The following cases do not mention the but-for test by name, but they use the language of the but-for test to exonerate the manufacturer: E.R. Squibb & Sons, Inc., 477 So. 2d at 970 (holding stronger warning on package would not have prevented harm because plaintiff would not have read it); Cobb Heating & Air Conditioning Co., 229 S.E.2d at 683 (holding detailed instructions would not have prevented fire if user did not read them); see also Williams, supra note 12, at 65 (relying on but-for causation to exonerate product seller who did not warn).

78. See, e.g., McCleskey, 193 S.E.2d at 18 (Ga. Ct. App. 1972)(holding failure to read label on drum of sanitizer caused harm); Safeco Ins. Co., 515 So. 2d at 657–58 (holding installer's failure to read instructions caused fire).

79. 515 So. 2d 655, 657–58 (Ct. App. 1987), cert. denied, 519 So. 2d 130 (La. 1988).

80. Safeco Ins. Co., 515 So. 2d at 657.

81. Id.
the but-for test, the substantial-factor test, or the NESS test of causation in fact. Under the but-for test, neither the failure to warn nor the failure to read cause the accident. This result flies in the face of common sense. Furthermore, the but-for test exonerates the negligent user as well as the manufacturer, a result courts may find unacceptable when plaintiff is a third party. Similarly inadequate is the substantial-factor test, which could lead to the conclusion that both failures caused the harm. The next section will show that the NESS test also fails to provide a definitive solution to the failure-to-read cases.

A few courts have adopted the limited-causal-inquiry approach, advocated by Dean Leon Green, in a second line of failure-to-read cases.

These cases reject the requirement that the failure to warn cause the harm, merely requiring that the sale of the product cause the harm. The reasoning is that a product without an adequate warning is defective. If the sale of that defective product caused the harm, there is a sufficient showing of causation. No showing that the warning would have made a difference is required.

Still other courts have employed a rebuttable presumption that an adequate warning would have been read and heeded (the "heeded-label presumption"). Courts using this presumption often have been unclear regarding the level of proof necessary to rebut the presumption. Some courts permit the presumption to be rebutted with evidence that the user would not have read an adequate warning. In such jurisdictions the result is the same as in the first line of failure-to-read cases. In effect, the presumption that the user would read an adequate warning is rebutted upon a showing that

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82. See supra text accompanying notes 19–20.
85. See, e.g., Petty v. United States, 740 F.2d 1428, 1440–41 (8th Cir. 1984)(upholding district court’s rebuttable presumption that vaccine recipient would have acted to reduce risk of serum sickness had he been adequately warned); Reyes v. Wyeth Lab., 498 F.2d 1264, 1274 (5th Cir. 1974), cert. denied, 419 U.S. 1096 (1974)(holding plaintiff must show five elements before burden of loss shifts to seller); Technical Chem. Co. v. Jacobs, 480 S.W.2d 602, 606 (Tex. 1972)(holding presumption exists that user would have read adequate warning); Menard v. Newhall, 373 A.2d 505, 506–07 (Vt. 1977)(holding presumption of causation is created in failure-to-warn cases, shifting burden to manufacturer to go forward with evidence).
86. See, e.g., Safeco Ins. Co., 515 So. 2d at 657–58 (holding defendant rebutted presumption of heeded warning).
87. See supra notes 76–78 and accompanying text.
the user failed to read the label. Plaintiff loses because in the absence of the presumption she cannot prove that the failure to warn caused the harm. Jurisdictions that do not permit the heeded-label presumption to be rebutted upon a showing that plaintiff did not read the label may, in effect, have adopted the sale-caused-the-harm rule of the second line of failure-to-read cases, or perhaps they find causation by using the NESS test.

Oklahoma adopted a unique position in Cunningham v. Charles Pfizer & Co. Cunningham relied on the heeded-label presumption. However, it employed an objective rather than subjective test for rebutting the presumption. Specifically, defendant must show that a warning would have altered an ordinary reasonable person’s behavior so as to prevent the injury. Under this approach plaintiff recovers if a reasonable person would have read and followed the instructions, even though the evidence is clear that plaintiff would not have read and followed the instructions.

B. The Scholars

Scholars have been as inconsistent as the courts in dealing with concurring-omission issues. Hart and Honore's treatment is illustrative. They conclude that the multiple-sufficient-cause problem arises in omission cases in which each of two (or more) acts needs to be performed in order to produce a beneficial result, and the failure to perform both (or all) acts results in non-occurrence of the beneficial result. Following is one example they use to demonstrate the principle:

Two switches need to be turned off in order to avert a fire. One switch is controlled by X and the other by Y. Both X and Y neglect to turn off their switches. The resulting fire injures P.

Under the but-for test, neither omission caused the harm. X's failure to throw the switch did not cause the fire because even if X had thrown his switch, the fire would have occurred because Y did not throw her switch. Likewise, Y did not cause the fire by not throwing her switch because, even if she had done so, the fire would have occurred because X did not throw his switch.

88. Aaron Gershonowitz, What Must Cause Injury in Products Liability?, 62 IND. L.J. 701, 704–09 (1986); see supra notes 82–84 and accompanying text.
89. 532 P.2d 1377, 1382 (Okla. 1974).
90. HART & HONORÉ, supra note 3, at 128.
91. Id.
Hart and Honoré would resolve such cases in the same way they resolve multiple-sufficient-cause cases involving multiple active forces. They would not apply the but-for test because it does not work, and they would regard each omission as a cause of the fire. This is because most people would agree that both omissions are causally relevant. Additionally, under the NESS test, “both omissions, being members of a set of jointly sufficient conditions of the harm, can be treated as a cause of the harm.” Several other scholars would apparently agree with this result, if not the analysis.

Yet, in a similar hypothetical, Hart and Honoré reach an apparently inconsistent result. They state that an employer's failure to provide safeguards for a worker that would have prevented the worker's injury, did not cause the injury because the worker would not have used the safeguards. Reconciling this conclusion with the two-switch hypothetical is difficult. In the missing safeguard case, just as in the switch case, two acts are necessary to prevent the accident (the employer must provide the safeguard, and the worker must use it), and the accident resulted because both were omitted.

Professor Wright agrees with Hart and Honoré's resolution of the safeguard case under the NESS test. He articulates his reasoning for this agreement most specifically when he applies the NESS test to the rental car hypothetical. According to Professor Wright the negligent driver caused the resulting accident, but the negligent renter did not:

\[ D's \text{ failure to try to use the brakes was necessary for the sufficiency of a set of actual antecedent conditions that did not include } C's \text{ failure to repair the brakes, and the sufficiency of this set was not} \]

92. Id. at 128, 235-36.
93. Id. at 128.
94. Id. at 128 n.33.
95. The following writers discuss the rental car hypothetical, supra text accompanying note 56, concluding that even though there is no causation in fact under the normal tests, both the driver and the lessor should be held liable to the pedestrian: BECHT & MILLER, supra note 9, at 96-97; KEETON ET AL., supra note 43, § 41, at 267 n.27; see also FLEMING, supra note 38, at 174 n.19 (arguing only driver is liable because driver's negligence deprived victim of cause of action against party responsible for defective condition of brakes).
96. HART & HONORÉ, supra note 3, at 127; cf. Williams, supra note 12, at 65 (concluding that failure to warn did not cause harm because no but-for causation).
97. Wright, supra note 3, at 1801-02.
98. See supra text accompanying note 56.
affected by C's failure to repair the brakes. A failure to try to use brakes will have a negative causal effect whether or not the brakes are defective. On the other hand, C's failure to repair the brakes was not a necessary element of any set of antecedent actual conditions that was sufficient for the occurrence of the injury. Defective brakes will have an actual causal effect only if someone tries to use them, but that was not an actual condition here. The potential negative causal effect of C's failure to repair the brakes was preempted by D's failure to try to use them.\footnote{99}

Professor Wright applies this reasoning (that the second omitter caused the harm and the first omitter did not) to any case involving "nonuse or misuse of a missing or defective safety device, unless the actor did not try to use the device because he knew it was missing or defective."\footnote{100} Thus, he agrees with Hart and Honoré that the failure to provide safety equipment to a worker did not cause the worker's injury if he would not have used it.\footnote{101} Presumably this reasoning also would apply to the case where the product manufacturer tortiously fails to put a proper warning on a label and a user negligently fails to read the label. A warning is a "safety device" in the sense that it protects the user by providing information that makes possible the safe use of the product.

Unfortunately, the NESS test does not appear to provide a definitive solution to multiple-sufficient-cause cases involving twin omissions. Under the NESS test, arguments identical to Professor Wright's support a finding that the first omitter caused the harm and the second omitter did not. Thus, in the case of the rental vehicle with defective brakes, one could argue the following inversion of Wright's reasoning:

C's failure to repair the brakes was necessary for the sufficiency of a set of actual antecedent conditions that did not include D's failure to use the brakes, and the sufficiency of this set was not affected by D's failure to use the brakes. Leasing a car without having repaired the defective brakes will have a negative causal effect whether or not the brakes are used. On the other hand, D's failure to use the brakes was not a necessary element of any set of antecedent actual conditions that was sufficient for the occurrence of the injury. Failure to use the brakes will have an actual causal effect only if the brakes are in working order, but that was not an actual condition here. The potential negative causal effect of D's failure to use the brakes was preempted by C's failure to repair them.
Professor Wright's use of "actual conditions" enables this manipulation. Professor Wright claims to be looking for actual events on which to construct the appropriate set of antecedent causal conditions. In his rental hypothetical, however, he assumes that C's failure to repair the brakes did not occur because he excludes this omission from the pertinent set of actual antecedent conditions. Subtracting this negative fact (failure to repair the brakes) has the same effect as adding an imaginary positive fact (that the car was equipped with good brakes). Failure to apply these good brakes then becomes the cause of the accident. Thus, Wright's analysis is based on an assumption that does not square with reality. The argument can be manipulated by assuming that the driver attempted to apply the brakes, that is, excluding the driver's failure to apply the brakes from the set of actual conditions to which the failure to repair the brakes belongs. The result is that the renter, rather than the driver, caused the accident.

Thus, in multiple-omission cases, the NESS test can be manipulated to produce differing results. In the missing-safeguard case, for instance, Professor Wright's analysis can support a finding that either the first omitter or the second omitter caused the harm. On the other hand, using Hart and Hörnæ's version of the NESS test, one can argue by analogy to their two-switch hypothetical that each omitter's default caused the harm. This analogy applies in the case where the rental company leases the car with defective brakes and the driver fails to apply them because two acts are necessary to prevent the accident, and the accident resulted because both were omitted. Nothing inherent in the NESS test militates in favor of one characterization over the other.

Unless courts agree on a uniform way of applying the NESS test in such cases, the test is helpful only in rationalizing results made on unarticulated bases; it is not helpful in reaching the results. A uniform characterization would have to be based on policy considerations or an inherent human concept of cause that is not embodied in the test itself.

In sum, multiple-sufficient-cause cases involving omissions cannot be resolved adequately by the application of strictly mechanical tests. In such cases causation is not a purely factual matter. Rather, it is either a policy question or a question to be resolved...

102. Williams, supra note 12, at 73.

103. Many writers believe that such cases present policy questions. See, e.g., Hart & Hörnæ, supra note 3, at lxv–lxvi; Robert Cooter, Torts as the Union of Liberty and Efficiency: An Essay on Causation, 63 CHI.-KENT L. REV. 523, 528–31
on the basis of human intuition about causation that is not reflected in the mechanical tests of causation. If it is sensible, for example, to always exonerate the first wrongdoer in certain types of twin omission cases, this must be explained on some basis other than the tests for causation in fact. The but-for test provides no solution in such cases. The NESS test provides too many. The next section will examine whether some unarticulated intuition about causation or some policy unrelated to causation in fact justifies the treatment accorded these cases.

IV. ANALYSIS

A. Temporal Sequence

A factual distinction between Hart and Honore's two-switch hypothetical and their missing-safeguard hypothetical is temporal sequence. In the missing-safeguard case, the one act (providing the safeguard) must take place before the other (using the safeguard). Is there any reason this difference in temporal sequence should produce the conclusion that the first omission did not cause the harm, but the second omission did? If so, it might explain the results in Saunders System Birmingham Co. v. Adams,104 Rouleau v. Blotner,105 Weeks v. McNulty,106 and New York Central Railway Co. v. Grimstad,107 which all held that the first omitter did not cause the accident. The temporal-sequence rationale would also be consistent with Basko v. Sterling Drug, Inc.,108 which held the second omitter liable. Of course, it could not explain Kitchen Krafters Inc. v. Eastside Bank of Montana109 and Cipollone v. Liggett Group, Inc.,110 which held the first omitter liable.

The temporal sequence of events does not affect the results reached under the NESS test,111 or the but-for test.112 Perhaps,
then, something inherent in human intuition impels a belief that in multiple-sufficient-omission cases the first omitter did not cause the harm, but the second did. For example, people may attribute cause to the second omitter because the second omitter's negligence occurs closest in time to the accident. In searching for cause, people may begin at the time of the accident and work backward until they come to the first plausible explanation for the accident, the second omission. They may then reason that the first omission is not causal because it never came into play. In the rental car example, the reasoning would be as follows: $D$ caused the accident by failing to apply the brakes; $C$'s failure to repair the brakes was not a factor in causing the accident because no one attempted to use them. The presence of such an intuitive sense appears unlikely, however. As previously pointed out, it does not explain all the cases.

There is one situation in which temporal sequence provides a policy basis for exonerating the second omitter: when the second omitter knows of the first omission and deliberately refrains from acting because the act would be futile. In this situation there would be no point in imposing liability on the second omitter. Thus, a worker who knows a safety device will not function and thus makes no attempt to use it ought not be held liable for an accident resulting from the failure to use the safety device.

B. Lack of "Independent Sufficiency"

A conceptual difference between acts and omissions, alluded to in Part III.B,\(^{112}\) could be used to justify differing treatment of acts and omissions in multiple-sufficient-cause cases. While the courts have never explicitly recognized this distinction, they may have been influenced by it. The distinction is exemplified by the case in which two actively operating forces are multiple sufficient causes of an event, and each act is sufficient, independent of the other, to produce the harm. In the twin-fires case, for example, each fire is sufficient to burn the plaintiff's house regardless of whether the other fire is present. In such cases people can trace the actual series of events that occurred and intuitively conclude that each fire contributed to the result.

\(^{112}\) Application of the but-for test would result in a finding of no causation in the two-switch hypothetical, whether the switches were required to be thrown in any particular sequence or not.

\(^{113}\) See supra notes 96–102 and accompanying text.
This independently-sufficient-cause rationale does not apply in all multiple-sufficient-cause cases involving omissions. In many such cases each omitted act can be a multiple sufficient cause only in an artificial sense because each omitted act is dependent on a nonexistent event to be sufficient to prevent the harm. A primary example is the case in which two acts are necessary to avert a harm and both acts are omitted. Neither omitted act in conjunction with surrounding circumstances is independently sufficient to prevent the harm. Each omitted act becomes sufficient only if one hypothesizes the absence of the other omission. That is, one must assume that an act occurred that really did not occur.

To illustrate, consider the rental car hypothetical. Repairing the brakes would be sufficient to prevent the accident only if the driver were willing and able to use them when the emergency arose. In the actual case, however, the driver did not use the brakes. The willing and able driver did not exist. Failure to repair the brakes is a sufficient cause only if the false assumption that they would have been used is employed. As previously described, this is done under the NESS test by excluding the failure to apply the brakes from the set of actual conditions to which the failure to repair the brakes belongs.

The identical problem, of course, applies to attributing cause to the second omission: failing to apply the brakes was not sufficient to prevent the accident because the car had no brakes. To make the second omitted act an independently sufficient cause, it must be assumed, contrary to reality, that the brakes were functional (i.e., that the failure to repair did not occur).

This conceptual difference between acts and omissions makes it more difficult intuitively to find the causal link between the omission and the harm. There is no actual series of events linking the omitted act with the harm. Courts could use this difference to find no causation in all cases in which the omitted act, in conjunction with actual surrounding circumstances, is not independently sufficient to prevent the harm.

There are several reasons such a firm rule would be overbroad. First, in some cases involving omissions, courts and scholars

114. See supra text accompanying note 102.
would impose liability on at least one of the omitters. Second, it may be a mistake to overemphasize the lack of independent sufficiency in these cases because in another sense each omission is independently sufficient. Each is sufficient in that the harm will occur every time one of the omissions occurs, as long as the other background factors are the same. In the rental car example an accident will happen every time a car with bad brakes is rented and an emergency requiring the use of brakes arises. This is true whether the driver attempts to apply the brakes or not. The same is true of the driver's failure to apply the brakes. Thus, the omission is a cause in the sense that Hume defined the term because the omission will invariably produce the result when all the background conditions are the same.

Nevertheless, the lack of the omitted act's independent sufficiency to prevent the harm may be a factor that militates against a finding of cause. Perhaps only when strong policy considerations point toward liability in a given case can lack of independent sufficiency be overcome.

In one type of case, particularly strong policy considerations might be necessary to overcome the lack of independent sufficiency. This is the multiple-sufficient-cause case involving both an omission and an independently sufficient act. Suppose, for example, a product manufacturer fails to include a necessary warning on the product label and the user, with full knowledge of the risk, is injured while using the product. The act of using the product with full knowledge of the risk is independently sufficient to cause the harm. The accident would have happened whether the warning was given or not, because the warning would have told the user nothing that she did not already know. On the other hand, the omitted act of placing the warning on the label is not independently sufficient to prevent the harm. The warning could prevent the harm only if the user read and heeded it. The omitted warning in this hypothetical could not have influenced the user's conduct because she knew everything that the warning would have said. In cases like this a court or jury might ignore the manufacturer's omission because they feel that it played a comparatively weaker role in the accident than the user's act.

116. See supra text accompanying notes 90–101 (discussing Wright and Hart & Honoré's multiple-omission analyses).

117. See supra notes 6–7 and accompanying text (describing Hume's theory regarding human knowledge of causation).
However, not all omission cases involve a lack of independent sufficiency. In the twin-fires case, for example, assume that one of the tortfeasors was charged with negligently failing to put out one fire, rather than negligently starting it. Here an actual series of events between the omission and the harm can be traced without adding hypothetical facts. Basko v. Sterling Drug, Inc.,\textsuperscript{118} discussed previously,\textsuperscript{119} presents another example. In Basko, plaintiff successively took two different drugs, both of which contained no warning against the risk of an adverse side effect. Since each drug was independently sufficient to cause the side effect, each omitted act (failure to warn) may be visualized as contributing to the result without inventing imaginary facts.

C. Economic Analysis

Several legal economists\textsuperscript{120} argue that from an economic standpoint it may often be undesirable to impose liability on defendants when there are multiple sufficient causes. The economic analysis presumes that the purpose of tort liability is to promote economic efficiency.\textsuperscript{121} In multiple-sufficient-cause cases, inefficiency can result in one of two ways. First, the increased scope of liability resulting from the imposition of liability in such multiple-sufficient-cause cases and/or the increased administrative costs associated with imposing liability in such cases can induce actors to take a course of action that does not optimize social welfare.\textsuperscript{122} Second, even in cases where the actor chooses the correct course of conduct, social welfare is not optimized because the administrative costs associated with imposing liability in multiple-sufficient-cause cases constitute economic waste in that they fail to reduce the level of accidents.\textsuperscript{123}

Underlying the economic analysis is the idea that imposing liability in cases in which defendant's conduct can make a difference in the outcome (where the conduct is a but-for cause of the harm)

\textsuperscript{118} 416 F.2d 417 (2d Cir. 1969).
\textsuperscript{119} See supra notes 69–72 and accompanying text.
\textsuperscript{121} Landes & Posner, supra note 120, at 110.
\textsuperscript{122} Shavell, supra note 120, at 465, 475–85.
\textsuperscript{123} Id.
will provide defendant with sufficient incentive to use the optimal amount of care. Going further and imposing liability in cases in which defendant cannot influence the outcome can be destructive either because it induces defendant to cease engaging in a socially useful activity ("crushing liability") or because it produces wasted administrative expenses.

Example 1, below, based on the twin-fires case, illustrates these points. The example is based on the following assumptions:124 There are two types of parties, injurers and victims, both of which are risk neutral. The parties are strangers, and the victims cannot do anything to prevent the harm. Injurers have two types of choices. They must decide whether to engage in the activity. If they engage in the activity, they must decide what level of care to use. Losses fall on victims in the absence of a liability rule that shifts the loss to the injurer. Liability, where it is imposed, is strict. The utility or disutility of any action or loss can be measured in money. Courts have perfect knowledge about each accident. Administrative costs associated with actual or threatened litigation arise in conjunction with accidents that fall within the scope of liability.

Example 1.

Assume that $D$ is engaged in activities in the vicinity of $P$'s house. In conjunction with these activities it is useful to $D$ to use fire in an open field. The utility to $D$ of burning is 2.5. If he uses fire, his fire may spread, damage $P$'s house, and cause a loss of 200. $D$ has three courses of activity open to him: he may burn and not use care; he may burn, but use reasonable care; and he may choose not to burn. The cost of using care is 1. The world is divided into three states, which together include all relevant possibilities. Before acting $D$ cannot know which state of the world will materialize, but he knows that one of these states must materialize, and that some states are much more likely to occur than others (see Table I). In state (1), $P$'s house will be burned without regard to what action $D$ takes, because another fire will destroy it. This fire will destroy $P$'s house by itself if $D$ chooses not to burn. If $D$ chooses to burn, then his fire will merge with the other fire, and the house will be burned by the merged fire. The probability of state (1) occurring is .01. In state (2), $D$ can influence the outcome. By either not burning at all, or by burning with the use of due care, $D$ can prevent the destruction of the house. If $D$ burns without due care, his fire will spread and destroy the house. The probability of state (2) occurring is .02. In state (3), $D$, once again, cannot influence the outcome. Here, no matter what action $D$ takes, $P$'s house will not be burned. That is,

124. Professor Shavell's model is based on these assumptions. Id. at 470–72.
even if \( D \) chooses to burn and not to use reasonable care, his fire will not spread and burn \( P \)'s house. The probability of state (3) occurring is .97.

Table I

<table>
<thead>
<tr>
<th>STATES</th>
<th>(1) Harm Certain</th>
<th>(2) Harm May or May Not Occur</th>
<th>(3) No Harm Certain</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTIONS</td>
<td>Probability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>( D ) burns negligently:</td>
<td>.01</td>
<td>.02</td>
<td>.97</td>
</tr>
<tr>
<td>( D ) burns carefully:</td>
<td>loss of 200</td>
<td>no loss</td>
<td>no loss</td>
</tr>
<tr>
<td>( D ) does not burn:</td>
<td>loss of 200</td>
<td>no loss</td>
<td>no loss</td>
</tr>
</tbody>
</table>

The social welfare (or utility) of each of \( D \)'s three possible actions can be computed by adding the benefits the parties derive from the activities and subtracting the costs of care and the expected accident costs.\(^{125}\) These figures are as follows:

<table>
<thead>
<tr>
<th>( D )'s Utility of Burning</th>
<th>Cost of Care</th>
<th>State (1) Accidents</th>
<th>State (2) Accidents</th>
<th>Social Welfare</th>
</tr>
</thead>
<tbody>
<tr>
<td>( D ) burns negligently:</td>
<td>2.5</td>
<td>−.01(200)</td>
<td>−.02(200)</td>
<td>= −3.5</td>
</tr>
<tr>
<td>( D ) burns carefully:</td>
<td>2.5</td>
<td>−1.0</td>
<td>−.01(200)</td>
<td>= −0.5</td>
</tr>
<tr>
<td>( D ) does not burn:</td>
<td></td>
<td>−.01(200)</td>
<td></td>
<td>= −2.0</td>
</tr>
</tbody>
</table>

This demonstrates that social welfare is maximized when \( D \) burns and uses care. Note that social welfare is negative for all of \( D \)'s three possible actions: the utility to \( D \) of burning is too small to offset the costs of accidents that inevitably arise in state (1). Therefore, social welfare is maximized when the negative value for social welfare is smallest.

Assume the law imposes strict liability on \( D \) for losses that occur in all three states of the world as long as \( D \) acts by burning either negligently or non-negligently. There is, of course, no liability if \( D \) refrains from burning entirely. This scope of liability includes

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125. Shavell, \textit{supra} note 120, at 471–72.
instances in which D's fire causes the damage by itself, as well as instances in which D's fire merges with the other fire, and the merged fire causes the loss. If D is strictly liable for harm resulting in states (1) and (2), he will choose not to burn, a non-optimal outcome. This can be demonstrated by computing D's expected utility from each of the three courses of action as follows:

<table>
<thead>
<tr>
<th></th>
<th>D's Utility of Burning</th>
<th>Cost of Care</th>
<th>State (1) Accidents</th>
<th>State (2) Accidents</th>
<th>D's Expected Utility</th>
</tr>
</thead>
<tbody>
<tr>
<td>D burns negligently:</td>
<td>2.5</td>
<td>–0.01(200)</td>
<td>–0.02(200)</td>
<td></td>
<td>= –3.5</td>
</tr>
<tr>
<td>D burns carefully:</td>
<td>2.5</td>
<td>–1.0</td>
<td>–0.01(200)</td>
<td></td>
<td>= –0.5</td>
</tr>
<tr>
<td>D does not burn:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>= 0.0</td>
</tr>
</tbody>
</table>

This result can be corrected by exempting D from liability for state (1) accidents (cases in which the loss would have occurred even had D not burned). Calculating D's expected utility if he is only liable for state (2) accidents verifies this conclusion:

<table>
<thead>
<tr>
<th></th>
<th>D's Utility of Burning</th>
<th>Cost of Care</th>
<th>State (1) Accidents</th>
<th>State (2) Accidents</th>
<th>D's Expected Utility</th>
</tr>
</thead>
<tbody>
<tr>
<td>D burns negligently:</td>
<td>2.5</td>
<td></td>
<td>–0.02(200)</td>
<td></td>
<td>= –1.5</td>
</tr>
<tr>
<td>D burns carefully:</td>
<td>2.5</td>
<td>–1.0</td>
<td></td>
<td></td>
<td>= 1.5</td>
</tr>
<tr>
<td>D does not burn:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>= 0.0</td>
</tr>
</tbody>
</table>

D must be exempted from liability for state (1) losses in order to induce him to make the choice that maximizes social utility because the utility of burning to D is not high enough to justify his taking the combined risks of liability arising from states (1) and (2). His utility is high enough to justify taking the risk of liability imposed for state (2) accidents alone.

If, however, the utility to D of burning were higher, for example 3.1, he would make the correct choice even under a rule that imposed liability on him for accidents arising in all states. Under the assumption that the utility to D of burning is 3.1, the social welfare of each of his three possible actions is computed as follows:
Thus, the first-best choice (the choice that maximizes social utility) is still for \( D \) to burn, but to use care in doing so. \( D \)'s expected utility if he is liable for accidents arising in all three states is as follows:

\[
\begin{array}{|c|c|c|c|c|}
\hline
& \text{\( D \)'s Utility of Burning} & \text{Cost of Care} & \text{State (1) Accidents} & \text{State (2) Accidents} & \text{Social Welfare} \\
\hline
D burns negligently: & 3.1 & -0.01(200) & -0.02(200) & = -2.9 \\
D burns carefully: & 3.1 & -1.0 & -0.01(200) & = 0.1 \\
D does not burn: & & -0.01(200) & = -2.0 \\
\hline
\end{array}
\]

\( D \) would therefore choose to burn carefully even if he is liable for all states.

So far this analysis has not considered administrative costs, the costs of invoking, or threatening to invoke, the legal system to recover compensation for \( P \)'s loss. Once administrative costs are included, however, the tortfeasor is induced, in marginal cases, not to burn.

For instance, assume that in Example 1 each of the two parties (\( P \) and \( D \)) will bear administrative costs of 20 for any loss included in the scope of liability. This means that there are no costs associated with accidents outside the scope of liability because the parties have perfect knowledge \textit{ex ante} of when there is liability and when there is not. Under this assumption, when \( D \) is subject to liability for losses arising in states (1) and (2), the social welfare of each of \( D \)'s three possible actions is computed as follows:

\[
\begin{array}{|c|c|c|c|c|}
\hline
& \text{\( D \)'s Utility of Burning} & \text{Cost of Care} & \text{State (1) Accidents} & \text{State (2) Accidents} & \text{\( D \)'s Expected Utility} \\
\hline
D burns negligently: & 3.1 & -0.01(200) & -0.02(200) & = -2.9 \\
D burns carefully: & 3.1 & -1.0 & -0.01(200) & = 0.1 \\
D does not burn: & & -0.01(200) & = 0.0 \\
\hline
\end{array}
\]
Thus, the first-best choice is still for $D$ to burn, but to use care in doing so. $D$'s expected utility if he is liable for accidents arising in all states is as follows:

$$
\begin{array}{|c|c|c|c|c|}
\hline
& D's \text{ Utility of Burning} & \text{Cost of Care} & \text{State (1) Accidents} & \text{State (2) Accidents} & \text{Social Welfare} \\
\hline
D \text{ burns negligently:} & 3.1 & -0.01(200+20+20) & -0.02(200+20+20) & = -4.1 \\
\hline
D \text{ burns carefully:} & 3.1 & -1.0 & -0.01(200+20+20) & = -0.3 \\
\hline
D \text{ does not burn:} & & & -0.01(200) & = -2.0 \\
\hline
\end{array}
$$

The increase in administrative costs will induce $D$ to choose not to burn, a solution that does not maximize social utility.

Restricting $D$'s liability to only second state accidents corrects this problem. $D$'s expected utility if he is liable only for state (2) accidents is as follows:

$$
\begin{array}{|c|c|c|c|c|}
\hline
& D's \text{ Utility of Burning} & \text{Cost of Care} & \text{State (1) Accidents} & \text{State (2) Accidents} & D's \text{ Expected Utility} \\
\hline
D \text{ burns negligently:} & 3.1 & -0.01(200+20) & -0.02(200+20) & = -3.5 \\
\hline
D \text{ burns carefully:} & 3.1 & -1.0 & -0.01(200+20) & = -0.1 \\
\hline
D \text{ does not burn:} & & & & = 0.0 \\
\hline
\end{array}
$$

Under these circumstances $D$ will choose the socially optimal solution of burning carefully.
If the utility to $D$ of burning were even higher, 3.3 for example, $D$ would make the correct choice even if $D$ were liable for accidents arising in all three states. The social welfare, if $D$ is liable for accidents arising in all states, is computed as follows:

<table>
<thead>
<tr>
<th></th>
<th>$D$'s Utility of Burning</th>
<th>Cost of Care</th>
<th>State (1) Accidents</th>
<th>State (2) Accidents</th>
<th>Social Welfare</th>
</tr>
</thead>
<tbody>
<tr>
<td>$D$ burns negligently:</td>
<td>3.3</td>
<td>-0.01(200+20+20)</td>
<td>-0.02(200+20+20)</td>
<td>= -3.9</td>
<td></td>
</tr>
<tr>
<td>$D$ burns carefully:</td>
<td>3.3</td>
<td>-1.0</td>
<td>-0.01(200+20+20)</td>
<td>= -0.1</td>
<td></td>
</tr>
<tr>
<td>$D$ does not burn:</td>
<td></td>
<td></td>
<td>-0.01(200)</td>
<td>= -2.0</td>
<td></td>
</tr>
</tbody>
</table>

Again, the first-best choice is for $D$ to burn carefully. $D$ will make this choice even if he is liable for accidents arising in all states.\(^{126}\)

126. A caveat is necessary. Under the assumptions concerning administrative costs, it is not universally true that $D$ will always choose to use care when this would produce the socially optimal result as long as his utility is high enough. This is because $D$ must pay for only one-half of the administrative costs that he generates. Under some circumstances it will be cheaper for $D$ to burn without using care and to pay damages and administrative costs than to use care and avoid liability.

This can be illustrated by assuming that in the above example $D$'s utility of burning is 10 and the cost of care is 4.7. Under this assumption, when $D$ is subject to liability for losses occurring in states (1) and (2), the social welfare of each of $D$'s three possible actions is computed as follows:

<table>
<thead>
<tr>
<th></th>
<th>$D$'s Utility of Burning</th>
<th>Cost of Care</th>
<th>State (1) Accidents</th>
<th>State (2) Accidents</th>
<th>Social Welfare</th>
</tr>
</thead>
<tbody>
<tr>
<td>$D$ burns negligently:</td>
<td>10</td>
<td>-0.01(200+20+20)</td>
<td>= 2.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$D$ burns carefully:</td>
<td>10</td>
<td>-4.7</td>
<td>-0.01(200+20+20)</td>
<td>= 2.9</td>
<td></td>
</tr>
<tr>
<td>$D$ does not burn:</td>
<td></td>
<td>-0.01(200)</td>
<td>= -2.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Thus, the first-best choice is still for $D$ to burn, but to use care in doing so. $D$'s expected utility if he is liable for all states is as follows:
This can be demonstrated by computing his expected utility under these circumstances:

<table>
<thead>
<tr>
<th></th>
<th>D's Utility of Burning</th>
<th>Cost of Care</th>
<th>State (1) Accidents</th>
<th>State (2) Accidents</th>
<th>D's Expected Utility</th>
</tr>
</thead>
<tbody>
<tr>
<td>D burns negligently:</td>
<td>3.3</td>
<td>-0.02(200+20)</td>
<td>-0.02(200+20)</td>
<td>-3.3</td>
<td></td>
</tr>
<tr>
<td>D burns carefully:</td>
<td>3.3</td>
<td>-1.0</td>
<td>-0.01(200+20)</td>
<td>0.1</td>
<td></td>
</tr>
<tr>
<td>D does not burn:</td>
<td></td>
<td></td>
<td></td>
<td>0.0</td>
<td></td>
</tr>
</tbody>
</table>

Nevertheless, even in cases where D's utility of burning is sufficiently high to induce him to act, an economist would say that it is still better to hold D liable only for accidents arising in the second state. Social utility is maximized by avoiding administrative costs that do not produce a return by increasing the level of safety. This can be demonstrated by computing social utility if D is liable for second state accidents only:

<table>
<thead>
<tr>
<th></th>
<th>D's Utility of Burning</th>
<th>Cost of Care</th>
<th>State (1) Accidents</th>
<th>State (2) Accidents</th>
<th>D's Expected Utility</th>
</tr>
</thead>
<tbody>
<tr>
<td>D burns negligently:</td>
<td>10.0</td>
<td>-0.01(200+20)</td>
<td>-0.02(200+20)</td>
<td>3.4</td>
<td></td>
</tr>
<tr>
<td>D burns carefully:</td>
<td>10.0</td>
<td>-4.7</td>
<td>-0.01(200+20)</td>
<td>3.1</td>
<td></td>
</tr>
<tr>
<td>D does not burn:</td>
<td></td>
<td></td>
<td></td>
<td>0.0</td>
<td></td>
</tr>
</tbody>
</table>

Under these circumstances D will choose to burn without using care, a nonoptimal result.

Thus, adding administrative costs complicates the analysis. Requiring each litigant to pay one-half of the administrative costs creates perverse incentives that can sometimes induce an actor to choose a nonoptimal course of conduct. These occurrences may be rare. Yet, the possibility that some actors will have an incentive to use a nonoptimal amount of care weakens the economic efficiency rationale for tort law. This phenomenon, however, has no direct impact on the question of whether to impose liability in multiple-sufficient-cause cases. The undesirable result in the example would occur whether or not D was exempted from liability for state (1) accidents.
In summary, this analysis demonstrates that from a purely economic point of view, and under the assumptions stated earlier, tortfeasors should not be held liable in multiple-sufficient-cause cases. Imposing liability can create two problems. First, in cases in which the utility to the tortfeasor is fairly low (less than 3.2 in Example 1) the threat of liability might induce defendants to refrain from socially desirable activities.

Second, even when the tortfeasor's utility is high enough to avoid this result (greater than 3.2 in Example 1) a socially undesirable result still occurs: resources are wasted. Defendants should not be liable for accidents that they did not cause in the but-for sense in order to maximize social utility by saving administrative costs that perform no valid economic function. That is, if the administrative costs are not necessary to induce defendant to make the socially optimal decision (burning carefully in Example 1) then those expenses are wasted in an economic sense. Society would be better off if those resources were put to a use that produced a return.

The economic analysis applies to omissions as well as acts. In Example 1, the analysis would be the same whether defendant's negligence consisted of an act (spilling gasoline on the fire) or an omission (failing to watch the fire). The temporal sequence of acts or omissions giving rise to the fires that merged and burned the house has no apparent effect on the analysis.

Because the economic analysis is based on simplifying assumptions, however, it may not apply to all of the omission cases discussed in this article. In the three situations discussed below it is arguable that either social welfare is maximized by imposing liability on one or more injurers in multiple-sufficient-cause cases, or that it is impossible for courts to formulate a liability rule that will consistently avoid the risk of crushing liability.

---

127. See supra note 124 and accompanying text (discussing Shavell's assumptions).
CAUSATION IN FACT

1. **Situation One: Injurer Can Prevent Harm by Not Acting at All**

In Example 1, the tortfeasor could not have prevented the harm arising in state (1) by not acting. Even if D had gone out of business the accidents arising in state (1) would have occurred because of the other fire. However, some multiple-sufficient-cause cases do not fit into this paradigm because the injurer can prevent the accident by not acting. Here, the socially optimal solution may be for the injurer to refrain from acting. Example 2, based on *Saunders System Birmingham Co. v. Adams*, illustrates this paradigm.

Example 2.

Assume that C rents a car to D. The utility to C of renting the car is represented by C's profit of 2.5. C has the same three options as the injurer in Table I; she can rent the car and not use reasonable care to repair the brakes, she can rent the car and use reasonable care to repair the brakes, or she can refrain from renting the car. The cost of using care is 1. D may or may not apply the brakes. An accident can occur either if D fails to apply the brakes or if C fails to repair the brakes, or both. If there is an accident, a pedestrian will be injured, suffering a loss of 200. If C refuses to rent the car to D, the accident would not happen. (There might be any number of reasons for this. One possibility is that C rents cars at a lower rate than other rental agencies because they are poorly maintained, and D cannot afford to rent a car from another agency.) The world is divided into the following three states: In state (1), D will not use the brakes if the need arises, and the accident may or may not occur. The variable that would prevent the accident in this state is that C chooses not to rent the car to D, thus preventing D from exercising his negligent propensity to fail to apply the brakes. As in Example 1, the probability of state (1) occurring is .01. In state (2), D will attempt to use the brakes if the need arises, and the accident may or may not occur. The accident will occur if C rents the car without using care. Again, the probability of state (2) occurring is .02. If C uses care, or if C does not rent the car at all, the accident will be avoided. In state (3), no accident occurs. The probability of state (3) occurring is .97 (see Table II).

In this example the world cannot be divided into the same three states used in Table I because it is within C's power to prevent the accident by not renting the car.

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128. 117 So. 72, 73 (Ala. 1928).
Table II

<table>
<thead>
<tr>
<th>STATES</th>
<th>(1) Harm</th>
<th>(2) Harm</th>
<th>(3) No Harm</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTIONS</td>
<td>Uncertain</td>
<td>Uncertain</td>
<td>Certain</td>
</tr>
<tr>
<td>(Driver would not brake)</td>
<td>(Driver would brake)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Probability</td>
<td>.01</td>
<td>.02</td>
<td>.97</td>
</tr>
<tr>
<td>C rents negligently:</td>
<td>loss of 200</td>
<td>loss of 200</td>
<td>no loss</td>
</tr>
<tr>
<td>C rents carefully:</td>
<td>loss of 200</td>
<td>no loss</td>
<td>no loss</td>
</tr>
<tr>
<td>C does not rent:</td>
<td>no loss</td>
<td>no loss</td>
<td>no loss</td>
</tr>
</tbody>
</table>

The social welfare of each of C's three possible actions is calculated as follows:

<table>
<thead>
<tr>
<th></th>
<th>C's Utility of Renting</th>
<th>Cost of Care</th>
<th>State (1) Accidents</th>
<th>State (2) Accidents</th>
<th>Social Welfare</th>
</tr>
</thead>
<tbody>
<tr>
<td>C rents negligently:</td>
<td>2.5</td>
<td>-1.0</td>
<td>-.01(200)</td>
<td>-.02(200)</td>
<td>= -3.5</td>
</tr>
<tr>
<td>C rents carefully:</td>
<td>2.5</td>
<td>-1.0</td>
<td>-.01(200)</td>
<td></td>
<td>= -0.5</td>
</tr>
<tr>
<td>C does not rent:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>= 0.0</td>
</tr>
</tbody>
</table>

Thus, social welfare is maximized when C does not rent the car.

Assume the law imposes strict liability on C for losses that occur in all three states of the world as long as C acts by renting, either negligently or nonnegligently. This scope of liability includes instances in which C's conduct is independently sufficient to cause the accident, and cases in which C's conduct combines with the driver's failure to use the brakes to cause the accident. If C is strictly liable for harm resulting in states (1) and (2), C will choose not to rent. C's expected liability from each of the three courses of action is computed as follows:
CAUSATION IN FACT

Exempting C from liability for state (1) accidents would induce C to rent the car and use due care. This is a nonoptimal result because social welfare is maximized when C does not rent the car. Calculating C's expected utility if liable only for state (2) accidents verifies this conclusion:

<table>
<thead>
<tr>
<th>C rents negligently:</th>
<th>C's Utility of Renting</th>
<th>Cost of Care</th>
<th>State (1) Accidents</th>
<th>State (2) Accidents</th>
<th>C's Expected Utility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5</td>
<td>-0.01(200)</td>
<td>-0.02(200)</td>
<td>-3.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C rents carefully:</td>
<td>2.5</td>
<td>-1.0</td>
<td>-0.01(200)</td>
<td>-0.5</td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>-1.0</td>
<td>-0.01(200)</td>
<td>0.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Therefore, in multiple-sufficient-cause cases in which the injurer could have unilaterally prevented the accident by not acting, the injurer should be held liable. In economic terms the injurer is the cheapest cost avoider. Imposing liability on her will produce optimal social utility. If her utility is high enough, she will be willing to engage in the activity notwithstanding her potential liability. If her utility is low, she will refrain from the activity. In either event her decision will produce optimal social welfare.

If there are two injurers and both could have prevented the accident by not acting, the analysis is similar except that imposing strict liability might give the injurers a diminished incentive to reduce their activity level. This would occur when one injurer anticipates the conduct of the other injurer, and realizes that if she were held liable for the victim's injuries she would have a right of contribution from the other injurer. She would be less inclined to reduce her activity level in this situation than if she believed she would be held liable for the full amount of the victim's harm.

A closely related situation arises when the victim is the cheapest cost avoider because she is the only party able to avoid the
harm, either by using care or reducing her activity level. Example 1 assumes the victim is unable to take measures to avoid the accident. This may be a realistic assumption, depending on the circumstances. Often, no measure a homeowner takes (such as spraying her house with fire retardant) will prevent the house from being consumed by a raging fire. Furthermore, she could not eliminate the loss merely by selling the house. This would simply shift the loss to the new owner. In many cases, however, the victim is not passive. She has the power to avoid the accident by employing precautions or reducing her activity level. Perhaps the victim in Example 2 (the pedestrian) could have avoided the harm by reducing the time she spent walking near traffic. If so, a rule exempting the injurers (C and D) from liability would maximize social welfare if they were unable to avoid the harm by reducing their activity level. The no-liability rule places the risk of bearing all losses that arise in state (1) on the pedestrian. This will force the pedestrian to accept the risk or reduce her activity level. Whichever decision she makes will optimize social welfare.\(^1\)

2. **Situation Two: Need to Avoid Collusion**

Professor Shavell suggests a rationale for imposing liability in multiple-sufficient-cause cases because a rule exonerating defendants creates an incentive for collusion. For instance, if one tortfeasor lit a fire that was about to consume plaintiff's house, he could avoid liability by inducing a second tortfeasor to light a fire that would merge with the first fire. The existence of the second fire would protect both tortfeasors from liability.

This rationale has limited application. Resorting to this policy for imposing liability in cases in which collusion could be proven is not necessary because the collusion is itself an independent basis for imposing liability. Furthermore, in many cases a tortfeasor would be unable or unlikely to procure such an agreement. Consider, for example, the product liability cases in which the manufacturer fails to put the required warning on a label, the user fails to read the label, and a bystander is injured. The manufacturer simply has no practical way of identifying in advance which of its products will be involved in an accident, contacting the user before the product is

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used, and bribing the user not to read the label, all to protect itself from liability for the bystander’s injury.

3. **Situation Three: Liability Based on Negligence**

The economic analysis in this section is based on the assumption that the tortfeasor is subject to strict liability. In theory, this analysis does not apply to negligence cases. Under a negligence rule a defendant would not have to refrain from engaging in useful activity in order to avoid the prospect of crushing liability. She can avoid all liability by using due care. In the twin-fires case, for example, defendant does not have to refrain from burning in order to escape the risk of liability for harm that she could not have prevented. She could avoid all liability by simply using due care. Thus, a rule imposing liability on a negligent tortfeasor in a multiple sufficient cause case does not produce inefficient results.

Landes, Posner, and Shavell argue that their strict liability analysis applies even if the formal standard of liability is negligence because there are substantial elements of strict liability in negligence cases. Defendants often are held liable under the law of negligence even though they use, or attempt to use, due care. Errors frequently are made in finding facts, determining appropriate levels of care, and in formulating due-care standards. This argument does not persuade Professor Wright. He contends that mistakes are just as likely to be made in a defendant’s favor as against him. Therefore, a defendant “might still minimize the sum of his accident prevention costs and expected liability costs by trying to adhere to his best estimate of the due-care level.”

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133. Id.
135. Id.
4. **Application of Principles**

In summary, economic analysis is directed toward the tort policy of maximizing social welfare. Economic analysis determines the optimal level of liability that would reduce accidents as much as possible without unduly discouraging potential injurers from engaging in socially useful conduct. The above analysis shows that in multiple-sufficient-cause cases in which neither injurer can prevent the accident, the social welfare policy can be advanced by exonerating them both. This is true whether the victim is passive or not. In cases in which one injurer can prevent the accident by not acting, it may be appropriate to impose liability on that injurer, and exonerate the other.

How might these principles apply to the cases previously discussed in this Article? For example, in the products liability case in which the manufacturer fails to put an appropriate warning on the label, the user fails to read the label, and a bystander is injured in the resulting accident, is it efficient to hold the manufacturer liable for the harm? The answer depends on a number of factors.

First, is liability strict or is it based on negligence principles? A majority of courts purport to impose negligence rather than strict liability on product manufacturers for failure to warn. Nevertheless, substantial elements of strict liability exist in failure-to-warn cases. As Professors Henderson and Twerski point out, because of the analytical confusion in the area "defendants cannot pattern their responsive behavior in ways that optimize the relevant levels of product safety." When the adequacy of a warning is evaluated, courts are extremely reluctant to grant directed verdicts. The bulk of cases, therefore, are decided by juries with very little guidance from the courts. According to Henderson and Twerski, frivolous cases often survive appellate review. If for these reasons

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136. See, e.g., Russell v. G.A.F. Corp., 422 A.2d 989, 991 (D.C. 1980)(describing liability tests for negligence and strict liability); see also RESTATEMENT (SECOND) OF TORTS § 402A cmt. j (imposing duty to warn only if seller knew or by use of reasonable foresight could have known of danger).


138. See, e.g., Hahn v. Sterling Drug, Inc., 805 F.2d 1480, 1483 (11th Cir. 1986)("Whether adequate efforts were made to communicate a warning to the ultimate user and whether the warning if communicated was adequate are uniformly held questions for the jury." (quoting Stapleton v. Kawasaki Heavy Ind., Ltd., 608 F.2d 571, 573 (6th Cir. 1979))).

139. Henderson & Twerski, supra note 137, at 267; e.g., Rhodes v. Interstate
manufacturers view their liability as being strict, then economic analysis suggests that manufacturers should not be liable for harms they could not have prevented.

Second, who is the cheapest cost avoider? The manufacturer should not be held liable if the user is the cheapest cost avoider. This would be the case if the manufacturer could not have prevented the accident by reducing its activity level, but the user could have. For example, if the product were a common one made by several companies, the manufacturer might not have been able to prevent the accident by ceasing production. This would be the case if the user could purchase an identical product made by another manufacturer and cause the accident anyway. At the same time, perhaps the user could feasibly prevent the accident by not using the product at all. Under these circumstances social welfare is maximized by exempting the manufacturer from strict liability and imposing strict liability on the user.

While economic analysis provides useful insights into the problems presented by multiple sufficient causes, there are two reasons why it does not provide a definitive solution in all cases. First, in a given case it may be impossible to determine controlling questions such as whether the injurers regard themselves as being subject to strict liability even though they are nominally subject to liability for negligence, or whether one of the injurers could have prevented the harm by not acting. Furthermore, courts are inclined to decide such issues by announcing rules that apply to large categories of cases. Yet the circumstances of individual cases falling within a broad category can be highly variable. When this is true, announcing a blanket rule that would consistently achieve efficient results is impossible. In some products liability failure-to-warn cases the user may be the cheapest cost avoider. In other cases the manufacturer may be the cheapest cost avoider. Finally, in some cases it may be that neither party is the cheapest cost avoider. A uniform rule always (or never) imposing liability on product manufacturers in multiple-sufficient-cause cases would necessarily impose the wrong incentives in some of the cases. Even if the rule were correct in the majority of cases, its salutary effects would be diluted greatly because of its perverse effects in other cases. Second, economic analysis may be unable to provide a definitive solution in multiple-sufficient-cause cases because non-economic policy factors may out-

Battery Sys. of Am., Inc., 722 F.2d 1517, 1521 (11th Cir. 1984)(holding that whether warning on car battery should have been made of phosphorus paint, so that it would be visible at night, was question for jury).
weigh economic considerations. These factors, discussed in the next section, may dictate a result that is not economically efficient.

D. Other Policy Considerations

Many people view tort law as a system of civil justice designed to resolve disputes and correct wrongs arising in our society. Tort law serves this important governmental function in a way unique to our society. The system is available to all persons without regard to their status or power. Justice is meted out by ordinary citizens, sitting as jurors, who are not subject to undue influence because of the wealth or power of a litigant.

This corrective justice view of tort law is a primary basis for imposing liability in the twin-fires hypothetical, especially when both fires are of human origin. The argument is that it would be appallingly unfair to permit an innocent victim to go uncompensated simply because of the fortuity that two tortfeasors, rather than one, lit the fires that contributed to the victim's harm. Each tortfeasor should not escape liability by hiding behind the negligence of the other. Courts imposing liability in such cases may be reflecting the view that society's interest in corrective justice outweighs the social costs of shifting the loss to defendants, without regard to whether social utility is maximized by imposing liability on the defendants. In other words, courts may be more interested in protecting the victim's utility than the injurer's utility.

Corrective justice considerations may apply less forcefully in multiple-sufficient-cause cases in which one cause was of innocent origin. The argument is that the tortfeasor did not make the situation worse because the harm would have occurred even had there been no tort. On the other hand, corrective justice still provides a basis for imposing liability in one-innocent-origin cases, even though it may be somewhat diminished. The sole tortfeasor created a situation that made plaintiff's harm inevitable. It is unfair to exonerate the tortfeasor just because of the fortuity that another force of innocent origin was operating that was sufficient to cause the harm. That is, courts should not allow the culpable injurer to hide behind the innocent cause in order to place the loss on the innocent victim. Some of the early multiple-sufficient-cause cases indicated that a tortfeasor responsible for one of the forces would not be liable if the other force was of natural rather than human origin. The recent

cases impose liability in both situations. This judicial ambivalence may result from the somewhat weaker argument for corrective justice in single tortfeasor cases.

Corrective justice considerations probably apply similarly to simple cases involving omissions. Most people would regard a driver who causes an accident by negligently failing to keep a lookout as being just as culpable as one who causes an accident by negligently driving too fast. Do corrective justice considerations apply differently in multiple-sufficient-cause cases involving omissions rather than acts? There can be no definitive answer to this question because corrective justice occurs only when courts achieve results consistent with community values regarding rights and responsibilities. For example, it is possible that in multiple-sufficient-omission cases people feel that neither omitter is responsible because neither omitted act is independently sufficient\(^{141}\) to cause the harm. If this is true, then imposing liability on the oimiters would not achieve corrective justice in the eyes of the community. Another possibility is that in successive-omission cases,\(^{142}\) people feel that the second but not the first omitter is responsible. If so, corrective justice considerations provide a basis for imposing liability on the second omitter but not the first.

This author believes that corrective justice can often be achieved by imposing liability in multiple-sufficient-omission cases. Neither temporal sequence, lack of independent sufficiency, nor lack of a second wrongdoer provide a sufficient basis for exonerating a culpable wrongdoer at the expense of an innocent plaintiff. Since corrective justice is a reflection of community values, however, determining the validity of this conclusion can only be achieved by submitting such cases to the jury under a test like the substantial-factor test. Using the substantial-factor test would permit the jury to decide the causation question according to its notion of fairness. Perhaps courts should submit such cases under a substantial-factor jury instruction when reasonable juries could believe that justice would be served by imposing liability.

At the same time, the corrective justice argument disappears when plaintiff is culpably responsible for one of the omissions that caused her harm. For example, in a failure-to-warn case in which plaintiff is the product user who failed to read the label, it is no

141. *See supra* part IV.B (discussing lack of independent sufficiency of omitted act in multiple-sufficient-omission cases).
142. *See supra* part IV.A (discussing significance of temporal sequence in successive-omission cases).
more unfair to let the loss fall on the plaintiff than to shift the loss to the manufacturer. The plaintiff is no more innocent than the manufacturer. Since notions of corrective justice do not come into play, judges would not be justified in submitting these cases to the jury solely on corrective justice grounds.

How then should courts deal with the failure-to-read case? As discussed previously, economic efficiency arguments may often point in the direction of exonerating the manufacturer. In the absence of some countervailing policy, there simply may be no reason for imposing liability.

The failure-to-warn case in which the user does not read the label represents one of the most difficult omission cases because it combines an extraordinarily difficult proof problem with a multiple-sufficient-cause problem. Even if the warning had been given and the label had been read, it may be impossible to determine whether the user would have heeded the warning and avoided the accident. As previously discussed, some courts relax plaintiff's burden of proof on this difficult issue. They impose liability when the omitted warning was designed to prevent the type of accident that occurred.

Does the policy underlying this approach to the proof problem provide an independent basis for imposing liability in the example under consideration? Probably not. The most likely reason for relaxing the burden of proof in such cases is either to achieve corrective justice or to provide an adequate incentive to use reasonable care. As stated above, corrective justice does not require compensation for the user who failed to read the label. Likewise, economic analysis demonstrates that imposing liability in a multiple-sufficient-cause case often does not produce an efficient outcome. Liability is not necessary to provide the manufacturer with an adequate incentive to give a reasonable warning. Furthermore, the incentive it gives the manufacturer to reduce its activity level may lead to inefficient results.

Some scholars argue that the need to protect plaintiff's autonomy sometimes justifies liability in failure-to-warn cases. Even if

143. See supra text accompanying notes 136–39 (discussing economic efficiency arguments justifying exoneration of manufacturer).
144. See supra part II.C (discussing proof problem).
145. See supra text accompanying note 31.
146. Aaron D. Twerski et al., The Use and Abuse of Warnings in Products Liability—Design Defect Litigation Comes of Age, 61 CORNELL L. REV. 495, 519 (1976); see also Henderson & Twerski, supra note 137, at 285–89 (arguing warnings allow...
a warning is not necessary to prevent an accident, it might be justified by the plaintiff's interest in exercising her free will by making an informed decision. This policy does not apply to the failure-to-warn case in which the user failed to read the label. Autonomy implies as much the right to act without information (if the product user chooses to be ignorant) as the right to act with information. If the user deliberately chooses not to read the label, she can hardly complain that her interest in autonomy has been infringed.

In the failure-to-read cases, loss spreading may represent the only remaining justification for imposing liability. It is not clear, however, that this justification, by itself, is ever strong enough to warrant imposing liability. The tort system is too expensive to be used as a way of providing insurance. Even if loss spreading were an independent justification in some cases, however, it probably does not justify liability when the user who fails to read the label is also the accident victim. Society simply may not wish to spread this type of loss.

In the end, perhaps the best solution to the failure-to-read cases is the one on which most courts have settled: exonerating the manufacturer. Unless a policy is strong enough to justify shifting the loss from the plaintiff to the manufacturer, the loss ought to remain where it fell.

In some failure-to-read cases policy considerations may dictate a different result. For example, in a failure-to-warn case in which the user failed to read the label and a bystander was injured in the resulting accident, corrective justice provides a reason to impose liability on the manufacturer. If, in addition, it appeared that the manufacturer was the only party that could have prevented the accident by reducing its activity level, then imposing liability would advance the policy of deterrence. Either of these justifications alone, or both in combination, may be enough to persuade a court that shifting the loss to the manufacturer is justified. If so, the court should submit the case to the jury under a substantial-factor jury instruction. Courts should not use the but-for test of causation in conjunction with the rebuttable presumption of causation in such cases. If courts permitted defendants to rebut the presumption of


148. See cases cited supra note 76.
causation by showing that the user would not have read the label, juries would always be forced to find that defendant's conduct was not causal.

V. CONCLUSION

Omission cases present some of the most difficult causation problems in the law. The proof problems presented by omission cases often require special solutions. The same is true of the theoretical problems arising in concurring-omission cases. Whether to exonerate a party who has failed to take a necessary precaution because another individual also has not taken a precaution is ultimately a question of policy. Searching for the definition of the word "cause" simply cannot provide the answer. In cases in which a third party is injured, considerations of corrective justice may justify giving that person a cause of action against the person or persons responsible for the tortious omissions. In cases in which the plaintiff is responsible for one of the tortious omissions, however, liability is more difficult to justify. The policies of deterrence and corrective justice often provide no basis for imposing liability in such cases.