Windfall and Probability: A Study of “Cause” in Negligence Law

Part II

Factual Uncertainty and Competitive Fairness†

Robert H. Cole* 

Part I of this Article provided a methodology for defining and distinguishing the varying uses of causal language in negligence law. It offered an illustrative analysis and outline of some principal uses of “cause” in negligence cases. The methodology led to highly particularistic meanings of “cause,” each depending on the legal function of the particular statement in which “cause” is used and on the operations by which that statement would be validated.

Parts II and III of this Article assume the methodology and outline of part I and attempt to analyze in detail the use of “cause” in those negligence cases in which a child darts into the path of a speeding car and is hit. In such cases, it is argued that the driver should not be held liable because, even if he had not been speeding, he would have been unable to avoid hitting the child. Courts decide this argument by asserting that “The negligence in speeding did (or did not) cause the injury.” They regard the question whether “the speeding caused the injury” as a question of “cause in fact.”

†This is the second of three installments in which this Article appears. The first installment, subtitled Uses of Causal Language, is Cole, Windfall and Probability: A Study of “Cause” in Negligence Law, Part I, 52 CALIF. L. REV. 459 (1964) [hereinafter cited as Part I].

* A.B., 1952, LL.B., 1955, Harvard University; Acting Associate Professor of Law, University of California, Berkeley.

This part of the Article begins with an analysis of the extent to which a statement such as "The speeding did not cause the injury" can be treated as a matter of fact. The analysis shows that the statement is significantly different from a statement of fact. The difference is a matter of the degree to which the statements have different operational characteristics.\(^2\) The operations for deciding the validity of "The speeding did not cause the injury" depend heavily on choices of legal policy, whereas the operations for validating statements of fact are relatively independent of such policies. The description offered here of the operational characteristics of "The speeding did not cause the injury" is extensive in order to document the relevance of policy choices, permit detailed identification of those choices, and provide a basis for discriminating use of policy in validating the statement.

The courts have simply assumed that whether "the speeding caused the injury" is a matter of fact. Their reliance on the language of cause in fact has led them to neglect the policy choices necessary to validate the statement. They have not indicated what legal purposes make it relevant to treat such statements as matters of fact. Yet, on the descriptive method followed in this Article, the courts' use of causal language is not meaningless, and their causal statements serve some legal purpose.\(^3\) To identify the primary content of such statements as "the speeding caused the injury" and to validate them, their legal purpose must be known.\(^4\) The remainder of part II of this Article, therefore, identifies the legal purpose of the courts' use of "cause" in the darting-out cases. The method of identification is descriptive in the sense that the legal purpose identified tends to rationalize what is in fact done in darting-out and analogous cases, is verified by the ways people would, on reflection, treat similar problems, and is a construction suggested by or consistent with the use of causal language by the courts.

The conclusions of part II are briefly summarized here systematically rather than in the order in which they are descriptively reached. Causal language in the darting-out cases is used to argue whether defendant's "speeding" was a "necessary condition" of the injury. To the extent it was not a necessary condition, plaintiff would get a windfall at defendant's

---

\(^2\) For a description of operational characterization, see Part I, at 473.

\(^3\) See id. at 463-65.

\(^4\) Id. at 473-75.
expense if he were compensated for the full cost of the injury. The legal
purpose of the causal language is to invoke a competitive causal policy
against such windfalls. A windfall at defendant's expense would be
avoided by reducing the plaintiff's recovery of damages from the full
cost of the injury to some smaller amount. The quantitative criterion for
determining that smaller amount reflects the extent to which the "speed-
ing" was (or was not) a "necessary condition" ("cause") of the injury.
Such a quantitative criterion would be provided if the causal statement
could be validated as is a statement of fact, for the appropriately analo-
gous statement of fact would be validated in terms of quantifiable prob-
abilities. The difficulty with this use of "cause" appears from this part of
the Article: Causal statements concerning whether speeding was a neces-
sary condition of the injury are unlike statements of fact and ordinarily
cannot be validated in terms of the needed probabilities. To validate
necessary-condition statements or otherwise to dispose of the windfall
argument requires the use of substantive legal policy. The use of legal
policy is the subject of part III of this Article.

The context of the argument against windfalls within the overall
framework of the functions that must be performed in a negligence suit
can be identified briefly. The driver's involvement in the plaintiff's injury
in a darting-out case is clearly substantial enough to justify subjecting
him to the rules of conduct and litigation under which he may be asked
to bear the full cost of the injury. He violated a rule against driving at a
speed noticeably associated with physical injuries. That rule is fashioned
to avoid injuries in historical circumstances of the general class exempli-
fied by defendant's involvement in the injury. There ordinarily will be
liability if the rule breached is designed to avoid injuries associated with
involvement such as that of the defendant. The very point of the rule is
to reflect a generalized judgment that it will be appropriate to sanction
disobedience with the full cost of an injury not avoided.

Nevertheless, a particular judgment is also needed, in addition to the
general conclusions that defendant violated a rule designed to avoid a
class of historical involvements in injuries and that his involvement was
within the class. A decision is inescapable that liability in the particular
circumstances is (or is not) an appropriate sanction for the particular
breach of a rule for which liability is generally an appropriate sanction.
It is with respect to this particular judgment that the causal statements
in darting-out cases are unclear and troublesome.

Doubts whether "the speeding caused the injury" are doubts whether
liability for the entire cost of the injury is appropriate. Children also
dart into the paths of nonnegligent, nonspeeding drivers, and there is no
liability. Defendant's claim is that his case is not materially different from
those cases; the injury would also have occurred if he had been driving
at some nonnegligent speed. The way to validate that claim is to validate
a statement concerning whether “speeding was a necessary condition of
the injury” in terms of probabilities. This is achieved through the opera-
tions used for validating statements of fact. Those probabilities in effect
show the extent to which the defendant’s case approximates cases in
which there is no speeding and no liability. They would thus provide a
quantitative criterion for reducing the plaintiff’s recovery to an amount
that reflects our uncertainty whether liability is an appropriate sanction
in the circumstances.5

The point of the windfall argument in darting-out cases is that liability
for the full cost of the injury is not an appropriate sanction in the partic-
ular circumstances. Uncertainty with respect to the extent to which
liability is an appropriate sanction should reflect the uncertainties in the
historical circumstances in which the injury occurred. Those historical
uncertainties are supposedly matters of fact independent of values or
legal policies. The historical uncertainties would be stated in the prob-
abilities that defendant’s “speeding was not in fact a necessary condition
of the injury.” The ideal means for deciding the windfall argument would
be, therefore, to determine the supposedly factual probabilities of whether
the “speeding” was a “necessary condition” independently of value and
policy choices. The following discussion analyzes the extent to which
that may be done.

I

VALIDATION OF STATEMENTS THAT NEGLIGENCE “CAUSED” INJURY

The purpose of this section is to analyze the extent to which opera-
tional characteristics of statements concerning whether the defendant’s
negligence in speeding “caused” the injury entitle them to be regarded
as matters of fact. The courts have treated darting-out cases as if such
statements were factual ones, the validity of which is independent of the
litigation context and the legal purposes of the statements.6 The analysis

5 The fault system assumes that the cost of the legal harm must be assigned to one
party on an all-or-nothing basis, but it need not assume that the legal harm is always equal
to the full cost of the injury. Specifically, the windfall argument in darting-out cases is
calculated to show that the cost of the harm to be assigned as a sanction on an all-or-nothing
basis is less than the cost of the injury. See text accompanying notes 115-16 infra.

6 See, e.g., cases cited note 1 supra. As used in this Article, “validity” is not equivalent
to “truth.” For example, a proposition which is said not to be susceptible to “validation”
is not to be taken as being “false.” With respect to a statement of fact, “validity” will refer
only to the probabilities in favor of the statement. It would have validity to the extent
of the probabilities in its favor. However, those probabilities may be low. For instance,
they may be less than what one demands of a statement on which he will act only if he
shows, however, that the validity of these statements depends to a considerable degree on the outcome of various policy choices that must be made during the process of validation. A number of these choices are dictated by legal considerations, and at least for that reason, statements concerning whether negligence "caused" the injury differ operationally from matters of fact to an important degree. The courts' use of causal language to discuss the argument involved in those statements, and their complementary assumption that the argument is one of fact, obscure the relevance of legal policy choices. Having ignored those choices, the courts have attempted to deal with the argument in factual terms that cannot be made to apply to it, and have thereby disposed of it in an unreliable and unreasoned fashion.

A. **Primary Content of "Cause" as "Necessary Condition"**

Although the facts⁷ and holdings⁸ vary, a number of darting-out cases purport to base judgment on a literal acceptance or rejection of defendant's argument that his negligence in speeding did not "cause" the injury.⁹ The primary content of statements in the cases that speeding did or did not "cause" the injury clearly concerns what would have happened if defendant had not been speeding. The opinions treat this primary content as equivalent to stating that, although "the speeding" was a sufficient condition of the injury, it was not a necessary condition. The following attempts to state this argument more precisely.

---


⁸ E.g., Bybee Bros., Inc. v. Imes, 288 Ky. 1, 155 S.W.2d 492 (1941) (defendant negligent in view of known presence of children); Kane v. Williams, 229 Md. 59, 181 A.2d 651 (1962) (contributory negligence); Graham v. Dawson Produce Co., 106 Okla. 294, 234 Pac. 185 (1924) (defendant not negligent).

⁹ E.g., cases cited note 1 supra.
There is no special difficulty in stating that "speeding" was a sufficient condition of the injury. Defendant or his behavior was a member of a set of conditions sufficient to have brought about the injury. That behavior can be described as "driving a car" or, if further historical detail is desirable, as "driving a car at speed X." A set of conditions sufficient to have brought about the injury may therefore be stated that includes as a member the speed, X, at which defendant in fact was driving. A set of conditions sufficient to have brought about the injury may therefore be stated that includes the speed, X, at which defendant in fact was driving. "Driving a car" and "driving a car at speed X" may be equated without historical distortion for purposes of describing defendant's involvement. The difficulty in stating the argument arises because "driving a car" and "driving a car at speed X" are not equivalent descriptions of behavior for legal purposes in deciding whether the behavior was a member of the set of conditions necessary to have brought about injury.

There are at least two senses in which one might talk about necessary conditions. There is what may be thought of as a strict sense of necessary condition, in which defendant's driving would not be a necessary condition of the injury. In this strict sense, it is conceivable that defendant might have injured the plaintiff without having driven a car at all or that some third person or force might have injured the plaintiff if the defendant had not done so first. This strict sense is not the primary content of the argument in the darting-out cases. The ways in which it is inconceivable that plaintiff might have suffered an equivalent injury would be ways that violate the accepted hypotheses of natural science. For defendant's driving to be a necessary condition of the injury in the strict sense, it must be believed that his not driving would violate an hypothesis of science, and of course it would not. There would not be liability in any negligence case if a defendant's involvement in the injury had to be a necessary condition in this strict sense.

Rather, the sense in which "necessary condition" is used in the darting-out cases must contemplate some particular alternative set or sets of conditions sufficient to bring about the injury. It is not enough simply to be able to conceive of alternative sets of conditions sufficient for injury; one must also be able to identify them. Driving is a "necessary condition" in this second sense if no other set of conditions of the same level of generality as one that includes driving could be stated which requires

---

10 It is assumed throughout this discussion that defendant's driving at speed X would be characterized as unreasonable or negligent. For consideration of policies concerning speeding and the characterization of such behavior as negligent, see generally part III of this Article.

11 For convenience, "plaintiff" as used in this Article refers to the injured victim.

12 See text accompanying note 99 infra.


14 Cf. id. at 106-07. "Necessary condition" will be used in this second sense only.
exclusion of driving and which is also noticeably more likely than all other similar sets of conditions sufficient for the injury. In other words, a necessary condition in this second sense requires that no similar alternative way of bringing about the injury can be identified and singled out as more likely than all other alternative ways it might have come about.

On the facts of the darting-out cases, driving a car by the defendant was a necessary condition of the injury in this second sense. There is no alternative set of conditions sufficient to injure the plaintiff that is any more likely than any other alternative set and that requires exclusion of driving as a member of the set (i.e., the likelihood of the set is not affected by defendant's not having driven). For instance, if the defendant did not drive and hit the plaintiff, perhaps one could conclude that he would have been injured anyway, say, by being hit by a train. But, on the facts of darting-out cases, the relative likelihoods of being hit by a train or being struck by lightning are not affected by whether defendant did or did not drive. Hence, defendant's driving a car would be a necessary condition of the injury in this second sense. That is true in all darting-out cases, and the defendant must, therefore, concede that, for purposes of liability, his driving was a necessary condition of the injury.15

The argument in the darting-out cases must be that driving at speed $X$ was not a necessary condition of the injury in the same sense in which driving (and hence driving at some speed) was a necessary condition. This means that there must be some set of conditions sufficient to have brought about the injury which includes driving at speed $Y$ (or perhaps at speed $Z$, and other speeds) which is noticeably more likely than all other sets of conditions sufficient to have brought about the injury that exclude driving at speed $X$. If it is assumed that the defendant had not driven at speed $X$, it must be shown that some speed other than $X$ was more likely than all other speeds and that at such speed the injury was more likely than at all other speeds.16

---

15 This restriction on the permissible meaning of an argument that defendant's behavior be a "necessary condition" of injury is an example of the role of legal policy in controlling the process of validation of supposedly factual propositions. Other examples occur in the text accompanying notes 37-38, 40, 53-54, 61-65, 75, 78 infra, and in notes 64, 82 infra.

16 Cf. Part I, at 509-11. The difficulties of stating this primary content of "necessary condition" illustrate the ambiguity and lack of utility of the so-called but-for test of the defendant's involvement in the injury. Under that test, defendant's conduct is "an antecedent but for which the result . . . would not have occurred." MODEL PENAL CODE § 2.03 (Proposed Official Draft 1962). A "but-for antecedent" may simply refer to a member of the set of conditions that was sufficient to bring about the injury. See MODEL PENAL CODE § 2.03, comment 2 (Tent. Draft No. 4, 1955); HART & HONORÉ, op. cit. supra note 13, at 106. If "but for" is understood in this sense, it should not be used: Putting the "test" in the affirmative terms of historically sufficient conditions and substantial involvement is less ambiguous and is operationally considerably more accurate. See, e.g., Part I, at 483-87.
referred to as the "necessary-condition argument" and may be shortened to "driving at speed \( X \) was not a necessary condition of the injury." If this argument cannot be established, and if driving was a necessary condition, then the speed at which driving was a necessary condition is presumably speed \( X \).

Simply stating this primary content suggests the fine care with which it would have to be validated. The following discussion analyzes the extent to which it can be validated in operations characteristic of statements of fact. The discussion shows that it will ordinarily not be feasible to select a speed or speeds other than \( X \) that are more likely than all others and to conclude that at such speed the injury was more likely to occur than at all others. The process of isolating such a speed cannot ordinarily be managed without considerable reliance on policy choices, which is uncharacteristic of inquiry into the validity of statements of fact. The analysis shows that necessary-condition statements which seem simpler to state and validate than "driving at speed \( X \) was a necessary condition" are not amenable to validation as matters of fact. If the argument can be validated as a matter of fact, it would still be necessary to decide the question of legal judgment whether the argument is persuasive on the issue of sanctioning wrongdoing with liability for the injury. The following discussion analytically precedes that question.

B. Validation of Necessary-Condition Arguments Independently of Their Legal Purpose

1. General Characteristics of Necessary-Condition Arguments as Supposed Statements of Fact

Analysis of the extent to which necessary-condition arguments may be validated on the processes for validating statements of fact requires identifying the kind of statement of fact that the argument purports to be. The paradigms of statements of fact include both those stating the relationships of events in accordance with the hypotheses of science and those stating historical particulars. Such statements are relatively ame-

On the other hand, "but for" may refer to a member of the set of conditions necessary to have brought about the injury. If it is understood in this sense, it should not be used either. The distinction between necessary and sufficient conditions appears significant in negligence cases only with respect to the function of adjudging whether liability is an appropriate sanction in the circumstances. See section II, A, 1, "The Relevance of Factual Clarity in Defining Plaintiff's Claim," infra in this part. The distinction is not important in exercising the function of finding and formulating the basis of defendant's duty; for that function, "sufficient condition" is equivalent and preferable. Cf. Part I, at 505 n.133. The "but-for" test is devised for the basis-of-duty function. Hence, use of "but-for" language in performing that function needlessly invites confusing consideration of arguments relevant to the different, sanctioning function. See FEMING, TORTS 180 (2d ed. 1961). Those arguments are not adequately identified in "but-for" language.
nable to affirmative demonstration through evidence of verification or of observation. A necessary-condition argument is not, because, unlike the subjects of paradigm statements of fact, the critical events it refers to cannot be repeated for verification, do not recur as examples of regular sequences of events, and did not in fact occur. The operationally factual character of the argument will depend on the extent to which it approaches one or the other paradigm of statements of fact.

The necessary-condition argument purports to approach a statement of an historical particular. Its primary content is highly particularized to the fact situation in litigation. There is no claim that the argument that the injury would have occurred at a speed other than X is applicable to any but the injury in litigation or that it can function as a generalization. The cases make clear that the argument is entirely concerned with what "would have happened" on the unique facts in litigation if defendant had driven at a speed other than X. Accordingly, the operational characteristics of the necessary-condition argument will approach those of statements of fact to the extent they approach the model for confirming statements of historical particulars.

The conditions for confirming statements of historical particulars turn on the presence of affirmative evidence in the form of observation of events. Such observations may amount to a description of the particulars referred to in the statement. They may compel or permit the inference that the event in question instanced an hypothesis of science or other reliable, but less invariable, generalization. They may provide sufficient basis for excluding alternative events. The characteristic process for validating historical statements is the accumulation of affirmative evidence of other historical particulars, looking toward an inference of the statement in

---

17 See cases cited note 1 supra. A necessary-condition argument can be generalized to a statement such as "Children also dart into the paths of nonnegligent, nonspeeding drivers and are hit," and it can be validated in that form as a species of statement of fact. In that form, however, it is a different argument, with different primary content and different persuasive force, from that more or less explicitly used in the darting-out cases. See section I, B, 4(c), "Generalizing Contrafactual Propositions as a Means of Belief," infra in this part; Part I, at 510.

Use of such generalizations may amount to no more than arguing that the defendant was not negligent. Part of plaintiff's case in characterizing defendant's behavior as negligent is to show that the burdens of altering it were justified by a lower frequency of injury associated with some alternative behavior. That requires a showing that defendant's behavior was of the type that, if corrected, typically avoids injury. The contrary-to-fact generalization that children are also hit by nonspeeding drivers is relevant to that showing. See, e.g., Rosebrock v. General Elec. Co., 236 N.Y. 227, 239, 140 N.E. 571, 575 (1923). Ordinarily, plaintiff is not required also to show specifically what alternative behavior defendant should or would have adopted or specifically how the plaintiff would have benefited from that choice. See, e.g., Hardy v. Brooks, 103 Ga. App. 124, 118 S.E.2d 492 (1961); Bartlett v. Taylor, 351 Mo. 1060, 174 S.W.2d 844 (1943); Part I, at 488.
question by excluding alternatives or by invoking generalizations of more or less invariable applicability. The operational characteristics of necessary-condition arguments tend to approach those of statements of fact, therefore, with maximization of particularized knowledge of a detailed fact situation.\textsuperscript{18}

Identification and definition of the detailed fact situation that is relevant to the particular necessary-condition argument is thus a determining factor in attempting to validate the argument. To the extent that that fact situation is determined by criteria that are independent of legal policies, the operational characteristics of the necessary-condition argument will approach those of fact statements. It is operationally characteristic of any statement of fact, including an historical particular, that its validity is relatively independent of the litigation context and that it would be proved and believed in substantially the same way in or out of court. To prove and believe a necessary-condition argument on the model of a statement of historical fact requires a maximum of detailed knowledge of independent events described in historical statements, all within the context of a fact situation determined by criteria also independent of legal policies. These criteria must approach the generalized intellectual characteristics of “rationality”; such relatively neutral criteria would seem to include concepts of relevance, reliability, credibility, and feasibility.

To illustrate, in darting-out cases the argument is that defendant’s driving at speed $X$ was not a necessary condition of the injury. That proposition might appear more easily validated to the extent the process of validating it is confined to speculation only about what would have happened at speeds other than $X$ from and after the first moment the driver should have seen the plaintiff in the street. This is how the courts have usually treated the question, doing so in the language of “cause in fact.” Yet this process of validation is narrow and artificial. In contrast, speculation could concern numerous possibilities of defendant’s behavior preceding the plaintiff’s first visibility in the street. Consideration of these possibilities may greatly increase the factual detail illuminating the event. Such possibilities may be relevant as part of the fact situation if it is delimited only by intellectual criteria that are neutral with respect to the purposes of negligence law.\textsuperscript{19} Accordingly, an inquiry much broader than that engaged in by the courts would increasingly approach the operational

\textsuperscript{18} That the statement becomes susceptible to validation with increase in the relevant information does not mean that the probabilities in its favor increase. Maximizing the relevant knowledge may show the statement is very unlikely. See note 6 supra.

\textsuperscript{19} See section 1, B, 3(b), “The Special Problem of Space and Time Restrictions,” infra in this part.
characteristics of matters of historical fact. The courts’ “cause-in-fact” inquiry exhibits relatively little of the characteristics of these matters of fact and any justification for its abstract limits must therefore be found in substantive rules of negligence law.

2. Maximizing Historical Speculation as a Means of Validating Necessary-Condition Arguments

The criteria for validating necessary-condition arguments on the model of statements of historical particulars include a maximization of affirmative evidence describing the relevant fact situation. In the darting-out case, that fact situation would include the impact of the car with the plaintiff and at least some of the events leading to it. Since the necessary-condition argument is a contrary-to-fact one, the detailed fact situation to which it refers is hypothetical, patterned more or less on the actual situation, but in which defendant is assumed to be driving at a speed other than X. It must be constructed on the basis of contrary-to-fact speculation. For convenience, such speculation will be referred to as “contra-factual”: an attempt to hypothesize events if certain historical premises of the events that did occur are imaginatively revised.

On the model of statements of historical fact, the hypothetical fact situation must be known in maximized detail if the necessary-condition argument is to be believed. The principal categories of such detail are: alternative courses of behavior that were open to the defendant, how alternative behavior would have been executed, the effects of alternative behavior on other behavior of the defendant, and its effects on the plaintiff or third persons. An outline of the bearing of details within these categories on the necessary-condition argument in darting-out cases follows. It shows the range and complexity of relevant contra-factual speculation.

One alternative course of behavior open to the defendant other than to drive at an excessive speed might have been not to drive at all. If it were decided that defendant would have chosen not to drive at all as his only alternative to driving at speed X, then driving at speed X would be regarded as a necessary condition of the injury. It is unlikely that such

20 Cf. McLaughlin, Proximate Cause, 39 Harv. L. Rev. 149, 186 n.101 (1925): “The only way to get words with unequivocal meanings is to coin them. That alienates the practical lawyer who sagely distrusts new words even more than new ideas. In the law of proximate cause particularly, the inertia of authority lies in words and not in ideas. An entirely new word is instantly recognized as unauthoritative, while a court can use the same word or phrase with half a dozen different contents during the same term of court without arousing suspicion as to the steadfastness of the law except in the minds of defeated counsel.”

21 It is not relevant for these purposes that defendant must concede that driving at some speed was a necessary condition of the injury. That concession is determined by the substantive law of negligence. See text accompanying notes 13-15 supra. The purpose of
a choice would be framed by anyone in deciding whether to drive. The
alternative not to drive seems significant only in such cases of claimed
negligence as, for instance, driving with defective equipment.

Other principal alternatives that were open to the defendant concern
choices of a lower order, those with respect to the manner of execution of
his course of behavior. In darting-out cases, these hypothetical alterna-
tives center on his driving at different rates of speed. One alternative is
that if defendant had not chosen to drive at speed \( X \), he might have
driven at the legal maximum speed. But there is no factual reason in any
given case to limit the alternatives to that one. He might have driven
slower than the speed he did achieve and nevertheless still have exceeded
the speed limit, or he might have driven well below the speed limit. There
is no warrant in experience for saying that people who do not speed al-
ways, usually, or perhaps even often, drive at the legal limit. Further,
any hypothetical alternative speed would depend on the locale; it might
be relatively constant on a rural road, and it would be relatively varying
in city driving. In the latter case, especially, its effect on the automobile's
location is imponderable prior to the driver's last start from a traffic
light or intersection, for he may have missed earlier green lights, and so
on, depending on his speed.\(^{22}\)

Description of a relevant fact situation sufficiently detailed to permit
validation of a necessary-condition argument must also take account of
the effects of defendant's choices of courses of behavior or their manner of
execution on his related behavior. For example, a defendant disposed to
drive at a speed less than the legal maximum might also be more sensitive
to peripheral indications that children are in the vicinity; failure to note
the periphery may not be negligent, but awareness of it may avoid
accidents. Similarly, the slower driver may be more aware of a need to
stop suddenly or sound his horn, or he may drive in a safer position on
the street. One affirmatively acting to obey a rule of the road may be
disposed temperamentally and consciously to be careful in other respects.
The organic quality of behavior suggests that change in any feature of

---

\(^{22}\) The defendant might also have driven faster than speed \( X \), but no speculation on
that assumption is necessary. See text accompanying notes 26-27, 78 infra.
safety-conscious behavior may result in, or be accompanied by, changes in other behavior that also tend to enhance safety.

Another category of detail in describing the fact situation concerns the hypothetical effects of defendant's hypothetical behavior on that of the plaintiff or third persons. For example, in darting-out cases, a change in the defendant's speed might have resulted in an enhanced opportunity for the plaintiff consciously to see, hear, or react to him, or to sense danger on some less-than-conscious level. A child who darts out may not always do so in one accelerating motion; he might dart, pause, and go, and a change in the car's speed might provide the necessary instant to effectuate the pause into one that would permit plaintiff to save himself.

Within each of the foregoing categories of detail relevant to the fact situation, there may be more than one likely alternative. Furthermore, the relevance and likelihood of any given alternative in one category may be dependent on which alternative was chosen from within another category. The hypothetical alternative speed chosen may determine what the driver's related safety-conscious behavior might have been, or which among several alternative effects on the plaintiff was most likely. An attempt to maximize the factual detail and breadth of the fact situation leads to a pyramiding of conjectural possibilities; there is a spectrum of contingencies for each contingency within the preceding spectrum of contingencies. The attempt to assimilate the necessary-condition argument to statements of historical particulars may therefore lead to an inability to reach any clearly preferable, concrete conclusion of whether driving at speed $X$ was a necessary condition of injury.

A final contingency with respect to each hypothetical description of the fact situation is the possibility of alternative degrees of injury to the victim. "Driving at speed $X$" might describe a member of the set of conditions necessary only to a different, perhaps less severe injury from the one plaintiff suffered. However, there would seem to be few cases in which it could be reliably concluded to what extent plaintiff's injuries were significantly aggravated by a difference in the speed of a colliding vehicle. The variousness of injury in automobile accidents and the seriousness of any impact at most speeds tend to preclude such conclusions. If a difference in injury could be estimated, it could be apportioned in a lawsuit. In fact, it is most likely that "driving at speed $X$" must be taken either as a necessary condition of the entire injury suffered or as not being a necessary condition of any part of it.  

---

23 See, e.g., Berry v. Borough of Sugar Notch, 191 Pa. 345, 43 Atl. 240 (1899). Apportionment of damages for personal injuries has been permitted in highly speculative circumstances, but typically the defendant is clearly liable for something and the context is one of whether he is to avoid paying damages if apportionment is not made. See, e.g.,
In short, the necessary-condition argument entails selecting speeds other than $X$ that are the most likely alternatives to defendant's driving at speed $X$, determining that the set of conditions which includes such speeds would be noticeably more likely to bring about the injury than all other sets, and then estimating the likelihood that such a set would have been sufficient for the injury. Inquiry into these matters with the operational characteristics of statements of historical particulars requires a maximization of speculation, unconfined by legal policy choices. In these circumstances, maximizing speculation seems calculated to become intellectually and judicially unmanageable in scope and complexity, and no most probable alternative to driving at speed $X$ is likely to emerge as a member of a set of conditions hypothetically sufficient for the injury.

3. Neutral Restrictions on Historical Speculation in Validating Necessary-Condition Arguments

An attempt to assimilate a necessary-condition argument to a statement of an historical particular may thus lead to a mass of contrapfactual propositions, each describing in concrete detail one of many hypothetical fact situations. Some of these propositions may be mutually inconsistent, and the number of such propositions will readily become unmanageable. Some means must be found to limit the number and variety of such propositions (i.e., to limit the extent of contrapfactual speculation in validating the necessary-condition argument). There are several means by which the extent of contrapfactual speculation may be radically reduced, perhaps even to manageability. To the extent these means are legally neutral generalized considerations of intellectual feasibility, their use will not compromise whatever operationally factual character the necessary-condition argument has.

(a) Principal Neutral Restrictions.—One neutral limitation on the detail and number of alternatives of behavior and its effects stated in contrapfactual propositions is imposed by the language of the contrapfactual propositions themselves. Hypothetically proposed events will usually be described in language less suggestive of a complex of specifics than that conveying the full sense of actual experience. Necessary-condition statements, as much other discourse in litigation about "the facts," are


An example of the form and content contemplated herein for such propositions appears in the text accompanying note 43 infra.

unavoidably put only in a scale of rough imprecision that ordinary men use to judge and describe observable events. Thus, "speed $X$" is itself an imprecise term; it estimates speed in such a way as to allow a margin of error of perhaps a few miles per hour. Speeds within that margin are excluded as hypothetical "speeds other than $X$" and as bases of contrafactual speculation. "The injury" is similarly imprecise. The limits of feasible discourse as well as of speculation may require that it be taken to exclude speculation about hypothetical injuries less extensive than those in fact suffered.

A second means for restricting the number of contrafactual propositions is to exclude the least likely alternatives from within each category of detail. For example, in the category of alternative courses of chosen behavior, one might exclude as too unlikely the alternatives of defendant's not having driven or having driven over a different route. Since no further speculation would be based on those premises, the pyramid of contrafactual propositions is geometrically reduced. Similarly, among alternative methods of execution of the behavior of driving, one might find that driving at the speed limit or at some standard average speed well within the speed limit are the most likely alternatives, and one might construct hypothetical fact situations on the bases only of those two premises. The roughly neutral standards by which one might select a single or a few alternatives as the only likely ones within a category of alternatives are difficult to describe. Selection entails a seasoned appraisal of patterns of events in experience, of the feasibility of reliable speculative judgments, and of whether the chances that any contrafactual propositions showing significant differences from what did occur will be sufficiently reliable in view of the chances of error and of other propositions being more likely.

A third means independent of legal policy for restricting the relevant contrafactual propositions is to exclude all speculation premised on alternative behavior that would be characterized as negligent. This requires an imaginative exercise not only in supposing the details of hypothetical behavior, but also in characterizing it as unreasonable in light of its imagined utility and the burdens of altering it. Competence to do such difficult conjecturing is regularly accorded juries in res ipsa loquitur cases, and the facts of those cases may often be less amenable to this process than are those of a simple automobile speeding case.\textsuperscript{26} Exclusion of negligent alternatives is rationally independent of particular rules of negligence law. The rationale of the necessary-condition argument is that behavior characterized as negligent (e.g., "driving at speed $X$") was not a necessary condition of the injury. That argument is not

\textsuperscript{26} See, e.g., 2 HARPER & JAMES, TORTS § 19.5 (1956).
proved by substituting a different description of behavior characterized as negligent (e.g., "driving at a speed greater than $X$") as a member of the set of conditions necessary for the injury.\textsuperscript{27} To the extent all likely alternatives to driving at speed $X$ would be characterized as negligent, no further speculation is justifiable and driving at speed $X$ would be treated as a necessary condition.

A fourth, similar limitation on the range of speculation arises if there are present alternative contrafactual propositions which would equally tend to support the necessary-condition argument. In such cases, the variables making for alternative propositions might be omitted from the contrafactual speculation and the contrafactual propositions generalized accordingly. For instance, assume that defendant would have first seen plaintiff when the car was either at point $A$ or at point $B$. If the icy condition of the street would hypothetically prevent defendant from stopping within either distance, the variable of defendant's position when first seeing plaintiff may be omitted for purposes of calculating stopping distance.\textsuperscript{28}

A fifth limitation on contrafactual speculation may be imposed by the nature of the data used to validate contrafactual propositions. Some data are sufficiently reliable to exclude speculation which supposes either their irrelevance or their inapplicability. For instance, geographic details at the scene of the accident may impose limits on the actors' ability to see or avoid each other that cannot be disregarded in any hypothetical construction of events.\textsuperscript{29} A traffic control at the intersection in which the impact occurred precludes assigning hypothetical speeds to defendant at the time of impact inconsistent with his obedience to the control. Hypothetical behavior of defendant or responses of plaintiff or third persons might have to occur in situations in which the behavior or responses would be trained or instinctive, as in one driver's reaction to another's breach of a rule of the road. In appropriate cases, hypothetical alternatives can be limited to those that include such a trained response.\textsuperscript{30}

\begin{thebibliography}{99}
\bibitem{28} Cf. Lewis v. Flint & P.M. Ry., 54 Mich. 55, 19 N.W. 744 (1884), 56 Mich. 638, 23 N.W. 469 (1885) (alternative to behavior complained of presented geographic hazard similar to that involved in injury).
\end{thebibliography}
Physical or psychological tests of an actor's propensities might indicate which hypotheses are to be preferred and which can be safely excluded.\textsuperscript{31} If chosen behavior is involved, alternatives that do not depend on the interested actor's testimony of what he would have done might be preferred.\textsuperscript{32} Finally, the range of speculation might be limited radically without reference to the policies of negligence law by excluding behavioral alternatives which seem to involve so many imponderables that their consideration would aid neither party. For instance, if one could consider not driving at all as an alternative to not driving at speed $X$ (which makes driving at speed $X$ a necessary condition), it would seem equally relevant to consider the alternative of defendant's having driven slower and having started earlier, which could bring him to the place of impact at the time he in fact arrived there (and which therefore makes driving at speed $X$ not a necessary condition).\textsuperscript{33} Speculation far back in time from the moment of impact is thus excludable without prejudicing either party. Speeding before the impact, at least in city traffic, generally involves so many contingencies of stopping and starting that alteration of any detail in the defendant's historical trip may be offset by equally plausible changes that might account for his hitting the victim as well as missing him.\textsuperscript{34}

Accordingly, it should be neutral to exclude all historical background before, say, defendant's last actual acceleration over a legal speed or his last actual failure to slow adequately to meet a reduced maximum speed, as, for instance, at an intersection. This neutral limitation on speculation might be called for by a competitive causal policy to the effect that the risk of such imponderables ought not to be involuntarily reassigned to change the historical status quo. With respect to these early events, the loss would ordinarily be considered as falling at random.\textsuperscript{35} As would be expected, such an exclusion of these early events appears regularly adopted in the cases, although only rarely is it expressly noticed and it is never explicitly given a justification.\textsuperscript{36}

\textsuperscript{32} Cf. Van Gilder v. Gugel, 220 Wis. 612, 265 N.W. 706 (1936).
\textsuperscript{33} See Richardson v. Parker, 205 Okla. 137, 139, 235 P.2d 940, 943 (1951).
\textsuperscript{34} Cf. Lewis v. Flint & P.M. Ry., 54 Mich. 55, 19 N.W. 744 (1884), 56 Mich. 638, 23 N.W. 469 (1885).
\textsuperscript{35} See Part I, at 475-76, 509, 511.
In short, at least some means are generally available to limit the scope and complexity of contrafactual speculation in darting-out cases. Such limitation is needed in order to permit selection of one or more relatively likely hypothetical fact situations in which it might be concluded that driving at a speed other than $X$ was a member of a set of conditions sufficient for the injury. Such conclusions should tend to resemble statements of historical fact to the extent the criteria for limiting speculation are independent of legal policies.

(b) The Special Problem of Space and Time Restrictions.—Legally neutral, generalized considerations for rationally managing conjecture permit excluding all contrafactual alternatives that reach far back from the time or place of the impact. Determination of the earliest time and place from which this limited inquiry can date is especially important in darting-out cases, because the moment in space and time in which the impact must occur is unique and fleeting. The closer together the actors are assumed to be when the hypothetical construction of events begins, the more likely, it may seem, that the actors would collide.

The courts appear to decide the crucial question of dating the contrafactual inquiry by fiat, without discussion. With respect to time, they assume that the inquiry must not precede the moment when the victim in fact was first seen by the driver, or first should have been seen. The courts simply ask what would have happened if, from and after that moment only, the defendant were driving at a slower speed. To date the inquiry into what would have happened if defendant had not driven at speed $X$ only from that moment will increase the accuracy of the speculation remaining to be done. On the other hand, this narrow limitation of the inquiry is not compelled by the recognition that there can be some neutral limit on one's backward look. It may not be until an earlier moment that inquiry becomes so diffused or infeasible as to be helpful to neither party. Limitation of the inquiry to the moment of plaintiff's first visibility, therefore, must be justified not on the basis of assimilation to processes of validating fact statements, but rather by reference to other policies.


than that of the victim’s first visibility could be of importance if, in that earlier time, defendant might have taken precautions in addition to slowing to his hypothetical speed, or the victim might have been able to take account of the defendant.  

The cases make a further assumption that is not justified by an attempt to treat the necessary-condition argument as a matter of fact. Their assumption is that the fact situation must be geographically limited also by the place from which defendant in fact first saw or should have seen the plaintiff. The cases speculate only about what might have happened if, from its location at plaintiff’s first visibility, defendant’s vehicle is treated as moving at some slower speed. If the assumptions for speculation are to be justified as attempting to assimilate the necessary-condition argument to an historical fact statement, one would begin with an identified moment of historical time when defendant first saw or should have seen the plaintiff. Speculating backward from that moment, one would find the defendant (having been driving at a hypothetically slower speed) farther away from the plaintiff at that historical moment than he in fact was. If defendant was hypothetically farther away and if he was hypothetically driving at a speed slower than X over that longer distance, a significant difference in outcome might be hypothesized.

The additional time provided by the combination of a longer distance to drive and a slower speed is important to the driver for purposes of

---


40 See, e.g., cases cited note 36 supra.

41 For example, assume the defendant is assigned a hypothetical nonnegligent speed (e.g., 20 miles per hour), which would be less than his actual speed (e.g., 40 miles per hour). At this hypothetical speed, it would take defendant’s vehicle longer to travel the distance between the points of plaintiff’s first visibility and of impact (e.g., 10 yards) than it in fact did take defendant’s speeding vehicle to travel between those points. In that additional time (.51 second, approximately), a car would travel a certain distance at the hypothetical, slower speed (5 yards). The place from which defendant hypothetically first saw or should have seen plaintiff should be measured by the distance he in fact was from the plaintiff plus the additional distance (for a total of 15 yards). In validating the necessary-condition argument in the case supposed, the plaintiff should be treated as first visible when defendant was 15 yards away and driving 20 miles per hour, and not, as the courts treat him, as being first visible from 10 yards away at 20 miles per hour. The difference may be important. In the case supposed, the defendant and plaintiff would have had 1.53 seconds to avoid each other, not, as in fact, .51 second and not, as the courts would treat the case, 1.02 seconds.

Of course, environmental conditions may limit such contrafactual reckoning. The distance from which plaintiff could in any event have been visible, and hence the time through which defendant could travel at a hypothetical speed slower than X, may be defined by static obstructions at the locale. See, e.g., Howk v. Anderson, 218 Iowa 358, 253 N.W. 32 (1934) (truck obstructing view); Draxton v. Katzmarek, 203 Minn. 161, 280 N.W. 288 (1938) (victim sliding down hill into intersection); Walker v. Kroger Grocery & Baking Co., 214 Wis. 519, 252 N.W. 721 (1934) (dense fog); text accompanying note 29 supra.
maneuver. It is also important because even a small child old enough to run might dart the width of a car or truck in the total time now hypothetically available. Moreover, other safety-related features of the hypothetical fact situation—defendant's opportunities for peripheral awareness of children, earlier braking, longer stopping distance for traction, plaintiff's maneuvering distance, and so on—may tend to cumulate against the likelihood of collision.4

In summary, an argument that speeding did not "cause" the injury asserts that defendant's driving at his actual speed (which would be characterized as negligent behavior) was not a necessary condition of the injury, since his driving at some other speed (which would not have been characterized as negligent) was a member of an identifiably likely alternative set of conditions sufficient for the injury. Both the primary content of that argument and the courts' treatment of it indicate that it is to be treated as a factual claim on the model of a statement of an historical particular. Treatment of the argument as approximating such a statement of fact entails, first, that the detail in which the parties' behavior is described be maximized to permit a relatively unequivocal inference of likely alternative behavior of the defendant. It entails, second, that both the relevance of and the limitations on the detail to be considered be determined by criteria that are relatively independent of the substantive law of negligence. The eventual outcome of this process would be promulgation in each case of a limited number of contrafactual propositions of the following form:

It is most likely that, if defendant had not driven at speed $X$, he would have driven at speed $Y$, and it is most likely that at speed $Y$ he would have noticed $A$ details on the sidewalk and would have seen the plaintiff at place $B$, and in those circumstances it is most likely that the plaintiff would have become aware of the defendant in $C$ way; it is therefore most likely that the plaintiff would (not) have been hit, for it is most likely that the defendant would have

---

4 This may seem more likely in cases in which the victim is hit by the front end of defendant's vehicle; if the impact is at the rear of the vehicle, it would presumably take more time for a clear miss, at least in a right-angle collision. Compare, e.g., Moreau v. Southern Bell Tel. & Tel. Co., 158 So. 412 (La. App. 1935), with Sorsby v. Benninghoven, 82 Ore. 345, 161 Pac. 251 (1916), and Eastburn v. United States Express Co., 225 Pa. 33, 73 Atl. 977 (1909). Perhaps the most likely cases for believing that the impact would have occurred even at defendant's most probable nonnegligent speed would be those occurring in intersections, at least if the defendant accelerated from a stop or lawful speed upon reaching the intersection. See Draxton v. Katzmarek, 203 Minn. 161, 280 N.W. 288 (1938); Wetherill v. Showell, Fryer & Co., 264 Pa. 449, 107 Atl. 808 (1919). In all cases, the opportunities for the parties to maneuver may be significant. See cases cited note 39 supra.

43 If the details in the text of this sample proposition following this footnote, explaining how the plaintiff would (note) have been hit, are omitted, the proposition may be
slowed to $D$ miles per hour in $E$ feet, that the plaintiff would have stopped running forward at time and place $F$, etc.

There will be a different proposition, of the same form, for each combination of the lesser likelihoods of each clause in the proposition. Through resort to various neutral means for confining speculation, perhaps the number of variables within each such proposition can be sufficiently limited to render the proposition intellectually manageable. The total number of such propositions perhaps can also be limited to manageability. Belief in one or more of these propositions is the basis of the validity of any necessary-condition argument approaching a statement of an historical particular.

A necessary-condition argument is apparently offered by the parties and treated by the courts as a statement to be validated along the lines of statements of fact. To do that, the statement must be validated in a process that tends to duplicate the conditions for validating statements of historical particulars. In attempting to duplicate that procedure, the trier must engage in a speculative inquiry calculated to produce a limited number of relatively specific contrafactual propositions. As a statement operationally approaching a statement of historical fact, the necessary-condition argument must be reduced to one or more such contrafactual propositions. Hence, belief in the validity of such propositions determines the validity of the necessary-condition argument. Accordingly, the purpose of the following discussion is to analyze the conditions of belief in contrafactual propositions.

4. Belief in Contrafactual Propositions in Validating Necessary-Condition Arguments

The following analysis indicates that the validity of contrafactual propositions can be stated only in terms of probabilities, or odds, in favor of the proposition. The analysis further indicates that such odds ordinarily cannot be stated for contrafactual propositions in a manner approaching that for statements of historical fact (i.e., the contrafactual propositions cannot ordinarily be validated as are matters of historical fact). Since the validity of the necessary-condition argument is dependent on validating such contrafactual propositions, necessary-condition arguments also cannot ordinarily be validated as matters of fact. The discussion suggests that contrafactual propositions can be validated in terms of odds only if the propositions are derived in speculation radically limited through reference to legal policies, in which case they do not meaningfully more susceptible to validation after the pattern of a statement of an historical particular. See text accompanying notes 57-58 infra.
approximate matters of fact. The circumstances in which necessary-
condition arguments can be validated as matters of fact occur only when
they are so generalized as to render them unpersuasive of unuseful as
legal arguments purporting to be grounded on the binding implications
of facts.

(a) Probabilistic Character of Belief.—It may be that belief even in
paradigms of statements of fact, such as statements of the relationship
of events in accordance with hypotheses of science and statements of
historical particulars, should be characterized as probabilistic. The
validating experiments and further hypotheses generated by any hypoth-
esis of science require that that hypothesis always be regarded as sub-
ject to revision. Moreover, since the data underlying the hypothesis are
statistical, its applicability in any given instance is presumably less than
a theoretical certainty. Nevertheless, the extent to which uncertainty
affects the reliability of a typical accepted hypothesis of science is so
miniscule as to be entirely disregarded for commonplace purposes, in-
cluding those of lawsuits. Similarly, belief in statements of historical
particulars entails an element of chance: Observation is often imprecise;
recolletion often compounds imprecision; and the credibility of observers
varies. Nevertheless, statements of historical particulars are amenable
in theory to commanding degrees of demonstration and of exclusion of
alternative statements. Their relative independence means further that
some part of a series of events, to which an historical statement validly
refers, may confront one in experience and then, like a scientific hypoth-
thesis, the historical statement cannot be safely disregarded. In other
words, the probabilistic quality of paradigms of fact statements may
ordinarily be disregarded.

In contrast, the probabilistic quality of belief in contrafactual prop-
ositions is highly characteristic of them. Since the events referred to in a
particularized contrafactual proposition did not occur and ordinarily will
not occur later nor be otherwise verifiable in experience, the validity of
the proposition depends upon the degree to which it is implied by other
statements that can be affirmatively validated by observation, recur-
rence, or verification. The quality of any implication from events is a
function of the extent to which any competing, alternative contrafactual
propositions may also be implied. Since it is difficult, if not impossible, to
exclude on legally neutral grounds all alternative contrafactual propo-
sitions, the trier is required to choose among them. It is this expression of

44 See Part I, at 483-84.
45 See section I, B, 4(b), "Applicability of Verification, Recurrence, and Observation
to Belief in Contrafactual Propositions," infra in this part.
46 See text accompanying notes 17-18 supra.
relative preferences among alternative propositions that constitutes their respective likelihoods, or probabilities, or the odds in their favor.

The need to validate contrafactual propositions in terms of probabilities appears also from considering the relationship of belief to action. Belief in valid paradigms of fact statements is ultimately obligatory: We ignore the hypotheses of science or the progress of independent events unfolding from past events at our peril. Usually, no similar independent experience obliges us to believe particularized detailed contrafactual propositions. Any behavior premised on such propositions that might serve to validate them in this pragmatic sense involves evaluative decisions that people make for future conduct based on the "teachings of experience" and evaluative judgments about history. Contrafactual propositions are usually too particularized to serve as the teachings of experience; but if people do so use them, it is precisely in the sense of "playing the percentages" of what will happen if one is confronted with some concrete emergency situation. Otherwise, evaluative judgments about history are expressed behaviorally by how people are willing to argue about them. Such arguments can usually be enforced only by bets or preferences of some sort, which is another way of saying that the validity of contrafactual propositions is determined by setting odds on them.47

Contrafactual propositions are predictions of what would have happened given certain premises of the fact situation. Ideally, odds, bets, or probabilities would be stated with quantitative precision. In practice, most predictions used in our workaday experience, including our evaluative judgments of historical experience, are imprecise and inarticulate. They may take the form of quantitative estimates of a rough order of magnitude. More often, they are simply reflected in the predicted burdens or disadvantages we are willing to encounter to gain particular predicted advantages or to avoid particular predicted disadvantages.

(b) Applicability of Verification, Recurrence, and Observation to Belief in Contrafactual Propositions.—The susceptibility of contrafactual propositions to validation as matters of fact (i.e., in terms of setting odds

---

47 Some contemporary theories of probability seem to confirm this conclusion. They treat a statement of probability, not as a judgment about some objective properties of the world, but as a prediction that certain events will occur. Such predictions are meaningfully understood only in the context of action, or decision, for the purposes of which the actor must choose, rely, or bet. Although one may articulate analytical criteria of rational bets, bets are subjective to the person making the estimate. In some situations, e.g., coin-flipping, experience may dictate odds for all people predicting. In many other situations, different people may rationally state different probabilities for an event. See SAVAGE, THE FOUNDATIONS OF STATISTICS chs. 1, 4 (1954); SCHLAFFER, PROBABILITY AND STATISTICS FOR BUSINESS DECISIONS ch. 1 (1959).
in their favor) depends in the first instance on what premises are given for the fact situation in which contrafactual prediction will occur. Some of the operational characteristics peculiar to choosing the premises of the fact situation have been indicated above. They concern means for narrowing contrafactual speculation on grounds independent of the policies of negligence law. Curtailing contrafactual speculation helps enable the trier to set odds on the remaining contrafactual propositions. It does not follow, however, that curtailing speculation will result in the odds on the remaining propositions being high or being increased over what they would be if speculation were more extensive. Rather, analysis of the operations in which the premises of the fact situation are chosen indicates the theoretical difficulty, if not impossibility, of setting any odds on contrafactual propositions in darting-out cases. The difficulties appear from comparing those propositions with some other types of contrary-to-fact statements.

For instance, consider first a statement such as "If it had not rained, the flowers would not have bloomed." The statement is relatively susceptible to formulation of the odds of its validity. Although it is directed toward a specific fact situation, the statement may also be restated affirmatively and be treated as a generalization of botany. Its operational characteristics are similar to those of "smoking causes lung cancer" as a generalization and as applicable to any given smoker. The odds of its validity are determined by knowledge about events that are independent of any given actor or trier; the occurrence of such events can be established; they recur regularly and can be verified; and validity is relatively independent of any irrepeatable historical event. Whether the statement is valid in any given application depends on certain variables (e.g., soil conditions; type of vegetation; availability of artificial irrigation) most of which can be identified with a high degree of accuracy, and the effects of which relatively clearly instance other valid generalizations. There are some variables that are considerably less reliable, but even those tend to be instances of reliable behavioral generalizations (e.g., whether a gardener would be hired).

Statements that are more particularized and speculative than the preceding one may also significantly share its operational characteristics. Those characteristics include the independence of relevant data, their recurrence and verifiability, and the importance of applicable reliable

---

48 For instance, the remaining alternatives that are not negligent may be unlikely, relative to the negligent alternatives that are eliminated from speculation. Propositions eliminated in the interest of manageability may have aided either party. Their omission may therefore be reflected in low odds as well as high odds on the remaining propositions.

49 See Part I, at 483-84. Cf. id. at 480-81, 497-98.
generalizations. A statement such as “If he had arrived at seven o’clock, he would have seen the train pulling out” is anchored to an event (the train pulling out) that is independent of the actor’s and trier’s choices. Its occurrence can be demonstrated after the fact. Contrafactual speculation varying with either the actor’s choices or other contingencies is confined to the ways the actor might have related to the historical event described. The ways he might have related are themselves confined by the high probability that reliable generalizations about how people act in the circumstances contemplated by the statement (i.e., departure times at railroad stations) would be applicable.  

A third type of statement is still more particularized and speculative but nevertheless also illustrates, although to a lesser degree, characteristics that facilitate a meaningful attempt to set odds. For instance, the statement “If he had attempted it, he could have run a mile in less than six minutes” can be evaluated by reference to occasions independent of the actor (in the sense of having already occurred) when he did run a mile, or can be verified if he attempts to do so in the future. The statement can be validated by reference to analogous independent occasions when others have run a mile. In considering such analogies, one would use reliable generalizations about physiology, psychology, and personal achievement to decide whether what others do is what the actor would do. The persuasiveness of such generalizations might be largely decisive of the odds on the statement.  

In contrast, validation in terms of meaningful odds is relatively uncharacteristic of contrafactual propositions in darting-out cases. Unlike their import for the above three examples of statements, independent historical facts (here, the facts of the collision) impose only minimal limits on the number and content of relevant contrafactual propositions. The defendant’s involvement and the injurious event itself are unique, at least for the detailed purposes of the contrafactual discussion, and they thus invoke no dispositive generalizations. Similarly, no analogies appear applicable in sufficient detail. To validate a contrafactual proposition in a darting-out case more specific than, for example, “Children also dart into the paths of cars that are not speeding and are hit,” one must know the details of the locale and of the parties’ positions, speeds, and behavior. But ordinarily no analogies in that detail can be identified or are recorded.


51 See, e.g., Smithwick v. Hall & Upson Co., 59 Conn. 261, 21 Atl. 924 (1890) (hypothetical results of describable fall); Singer v. Messina, 312 Pa. 129, 167 Atl. 583 (1933) (ability to see various kinds of lights).
Furthermore, contrafactual propositions are not premised on facts of an established event in reaction to which defendant's behavior would be limited to predictable alternatives. The established event would be the plaintiff's appearance in the street, but it, as distinguished, for example, from a train's leaving on schedule, is relatively dependent on the defendant's behavior. Moreover, even if the defendant's alternative reactions could be limited to two—driving so as to hit the plaintiff or driving so as to miss him—no behavioral or other generalizations are available to govern reliable belief in which alternative would take place.

To the extent hypotheses of natural science and generalizations of behavioral sciences are likely to apply, they do not apply at a dispositive level of generality. They are either too narrow (e.g., given its speed and position, and so on, the automobile would skid a certain distance if the brakes were applied)\(^\text{52}\) or too broad (e.g., drivers will react to avoid sudden obstructions).

It follows that contrafactual propositions in darting-out cases are highly unreliable, in the sense that conditions for estimating odds in their favor in the manner of statements of fact are relatively unobtaining. The more particularized the claims made in such propositions and the more unique the events they refer to, the more difficult it is to set odds. The contrafactual propositions relevant to necessary-condition arguments are highly particularized references to a unique event. In these circumstances, one ordinarily would not estimate the validity of the proposition, not set odds, at all.\(^\text{53}\)

A contrafactual proposition may be thought of as hypothesizing a system of relationship between the plaintiff and defendant moving independently of each other toward a point of potential impact. If there were given a framework for the system, in terms of some starting places for the parties and their speeds, directions, and interactions, it would be difficult enough to estimate the odds of impact. But the framework itself, the premises of the hypothetical fact situation, are not adequately given and cannot well be made so. Even if one may calculate the likelihood of an impact within any given contrafactual proposition, the odds on the validity of the assumptions of that proposition must also be estimated. The conditions for doing that for each of those assumptions, in the manner used for factual propositions, are relatively inapplicable.


\(^{53}\) Cf. Ellsberg, Risk, Ambiguity and the Savage Axioms, 75 Q.J. Econ. 643 (1961); Becker & Brownson, What Price Ambiguity? Or the Role of Ambiguity in Decision-Making, 72 J. Pol. Econ. 62 (1964) (analyses indicating that differing principles of rational decision making, or betting, may apply in situations of high uncertainty from those otherwise applying).
That it may not be rational in these circumstances to state odds at all means that the contrafactual proposition cannot be validated after the model of a statement of historical fact. If it is to be validated in terms of odds, validation must reflect the substantive purposes and values of the inquiry (i.e., of the litigation context).\(^5\) One may still rationally assess what he is willing to risk in reliance on the contrafactual proposition, but he may only do so for identified substantive purposes, such as those of assigning liability in a lawsuit. For different purposes, he might rely differently on the proposition (i.e., set different odds in its favor). Proof and belief in the proposition will vary depending on whether it is being validated in or out of a lawsuit. It is operationally relatively unlike a matter of fact.

(c) Generalizing Contrafactual Propositions as a Means of Belief.—The foregoing analysis deals with the inability to validate necessary-condition arguments, and the contrafactual propositions they generate, on the model of statements of historical particulars. Some contrary-to-fact statements, however, can be validated in operations characteristic of other types of statements of fact. For instance, the necessary-condition argument could be generalized to such statements as “Some injuries occur at slower speeds,” or “Children also dart into the paths of nonnegligent, nonspeeding drivers and are hit.” These statements can be validated as matters of fact independently of the litigation context and may be relied on because of their credibility and coherence with experience.\(^6\) They are validated more after the model of hypotheses of science than after that of historical statements. But such a verifiable contrafactual generalization will not suffice in a darting-out case to validate the necessary-condition argument. It is clear from the cases that the argument is not simply that injury could happen independently of defendant’s involvement. The claim is that the factual singularities show the particular injury would have occurred at a speed other than \(X\).\(^6\)

Nevertheless, the fact that contrafactual propositions become increasingly susceptible to validation as they are generalized from historical

\(^5\) Cf. authorities cited note 53 supra; text accompanying note 65 infra.

\(^6\) See cases cited note 1 supra; section I, B, 1 “General Characteristics of Necessary-Condition Arguments as Supposed Statements of Fact,” supra in this part. One could choose not to sanction wrongdoing with liability on the basis of the valid statement that darting-out injuries occur at nonnegligent speeds. That general statement would be an equally persuasive argument in all darting-out cases. Similar generalizations could be found to defeat liability in substantially all negligence cases. If speeding is considered risky enough to be negligent in spite of the fact that injuries also occur at lower speeds, the argument seems unpersuasive as a further reason against liability. See note 17 supra. It is rejected by the courts in darting-out cases. See text accompanying notes 70-71 infra; part III of this Article.
particulars toward scientific generalizations may be relevant in validating
the necessary-condition arguments offered in darting-out cases. Analysis
suggests that one may change the form of contrafactual propositions to
render them less specific than what has been assumed above and yet
more specific than generalizations that children dart into nonspeeding
cars. For instance, one might omit from contrafactual propositions the
details of how defendant would or would not have avoided the plaintiff,
and might state only the framework of the fact situation on which the
conclusion is likely.\textsuperscript{57} The less specific proposition may then at least
appear somewhat simpler to validate.\textsuperscript{58}

A similar formal consideration is that contrafactual propositions can
be made more susceptible to validation by concluding that the defendant
would not have hit the plaintiff at a speed other than \(X\). In the absence
of validated information, there would seem to be rationally open to
speculation a vast number of possible ways, stretching back over space
and time, that the plaintiff would \textit{not} have been hit.\textsuperscript{59} In contrast, the
conclusion that the plaintiff would have been hit at a speed other than \(X\)
must rest on only one or a few narrow, particular descriptions of events.
In situations of high uncertainty, one cannot well rely on any one or a
few such propositions. Instead, if little else is known specifically, a
generalization such as "If defendant had acted differently, the effects on
plaintiff would have been different" is considerably more reliable and
likely to apply in any given case than a contrary generalization that the
effects of different behavior (\textit{e.g.}, different speed) would not have been
different. The former generalization can be validated in the manner of
similar statements of fact by reference to much independent experience,
and an order of magnitude of its likelihood can be stated. In a sense,
of course, it may almost be thought applicable in every case and its use
would substantially obviate the necessary-condition argument entirely.\textsuperscript{60}

Formal differences between contrafactual propositions may affect
their susceptibility to validation by reflecting their relative character as
particulars or as generalizations. The extent to which a necessary-condi-
tion argument (\textit{i.e.}, whether "negligence caused injury") is operationally

\textsuperscript{57} For example, one might omit from the contrafactual proposition set out in the
text accompanying note 43 supra, all of the proposition following that note.

\textsuperscript{58} An analogy might be found in res ipsa loquitur cases, in which the jury is not
required to specify which of the several sets of conditions sufficient to have brought about
the injury, each of which might be characterized as negligent, the jury believes in fact to
have been the sufficient condition of the injury. Further, perhaps individual jurors do
not feel required to select any one such set. The operational characteristics of individual
or group decisions in such circumstances depend heavily on policy choices of judicial
administration and substantive law permitting such ambiguity.

\textsuperscript{59} Cf. Atlantic Coast Line R.R. v. Daniels, 8 Ga. App. 775, 777, 70 S.E. 203, 205 (1911).

\textsuperscript{60} See text accompanying notes 70-71 infra.
a matter of fact thus varies with its form and primary content. What formal character and primary content the argument will have is a matter of choice. Nothing in a necessary-condition argument independent of the legal purposes governing it dictates these choices. Whether the broad generalization that different behavior would have had different effects should be used to evaluate (and reject) a necessary-condition argument, whether the argument should be accepted when negatively stating that different behavior might not have different effects, and whether counterfactual propositions should omit the details of how plaintiff would or would not have been hypothetically injured, are all choices to be made. They are not dictated by legally neutral considerations of rationality, feasibility, or nonfavoritism of either party.

In short, whether the qualities of a generalization are ascribed to propositions on which odds will be set in validating a necessary-condition argument must be determined in accordance with choices that cannot be based only on considerations of intellectual methodology; the only relevant alternative bases are considerations of legal substance. To the extent this is so, such propositions are operationally not simple matters of fact. The influence of substantive law on operational characterization of belief in counterfactual propositions has appeared significant throughout this analysis. The role of legal policies in defining the inquiry and framework within which counterfactual propositions are to occur and in determining their form seems to preclude meaningful validation in terms of the odds on matters of fact. Still, people do propose inquiries, the premises of which may not be consistent with the implications of historical experience. For instance, one might be asked (e.g., for purposes of personality evaluation) whether he thinks he would have been born Beethoven or Napoleon in the eighteenth century, but the premises are such that no one would attempt to set the odds as to who he would have been. If one were required to state a preference for one of those “possi-

---

61 See text accompanying note 55 supra; note 17 supra.
62 See text following note 59 supra.
63 See text accompanying note 57 supra.
64 One neutral consideration to help determine with what specificity the counterfactual proposition should be stated might be the ease with which it can be demonstrated. As much specificity might be demanded of the proponent of the proposition as judicial experience suggests he can meet within the ordinary range of effort and success obtaining on similar issues. However, the necessary-condition argument is not a typical argument, and a matter of choice remains whether its unusual needs would be satisfied by the “normal” showing. For instance, the exculpatory quality of the argument might be thought to justify requiring a highly specific defensive showing by defendant. That decision would be a function of rules of negligence and of loss allocation, and not a function of the characteristics of matters of fact. Cf. note 82 infra (burden of persuasion).
65 See generally part III of this Article.
"CAUSE" IN NEGLIGENCE LAW

bilities" and in that sense to set relative odds on them, the concept of "odds" involved would be operationally very different from that used in probabilistic prediction.

The operational character of necessary-condition arguments in darting-out cases, that is, the concept of odds involved in validating them, is similar to the Beethoven-Napoleon case in a meaningful degree. For instance, suppose that, in a darting-out case, a hypothetical fact situation is simply given in which defendant first saw plaintiff at the time and place he in fact did see him, was driving at the maximum posted speed, and was keeping an optimum lookout. The sense in which one would then set odds on the possibility of a collision on these assumptions is abstract. It is an effort to permit a simple inference of the applicability of a set of scientific hypotheses (i.e., which explain how cars are stopped in specified circumstances) with as many indeterminate variables as possible excluded from speculation. But no effort is made to set the odds in favor of any of these assumptions or of the group of them, or to set the odds against the excluded variables.65

We of course tend to think in such a case that we are using "odds" in its paradigm probabilistic sense, and perhaps within the assumptions of the fact situation we are doing so. But the very purpose of framing the fact situation is inconsistent with our having simply assumed its premises. That purpose is to approximate in validating contrafactual propositions the operations for validating statements of historical fact. Unlike belief in historical facts, belief in one's conclusion about the hypothetical fact situation is not compelled by its consistency with independent events. The odds being set resemble purely formal conclusions from idealized assumptions. The framework within which odds are set is limited by value and language choices, which must then be stated and justified if the conclusion is to be rational.67

5. Judicial Application of the Operational Characteristics of Statements of Fact to Necessary-Condition Arguments

The courts have largely ignored most of these considerations. They have abstracted the fact situations in which predictions are made. Yet they have not recognized or rationalized the policy choices for doing so and have insisted that the question be decided as a simple one of "fact." The following discussion summarizes the courts' treatment of contrafactual speculation. The summary tends to confirm the preceding analysis

65 See section I, B, 3(b), "The Special Problem of Space and Time Restrictions," supra in this part. Cf. text accompanying note 50 supra.
in that it helps account for the difficulties the courts have had in the
cases and for some of the courts’ conclusions. Primarily, however, the
discussion indicates that the courts have been unexacting and inexplicit
in dealing with necessary-condition arguments. The cases are more or
less uniform in characterizing the argument as one of “cause” or “cause
in fact” (i.e., as whether the defendant’s speeding “caused” the injury)
and in treating it as an issue to be submitted to the jury for a yes-or-no
finding if it is open to reasonable debate.68 There is conspicuously no
theoretical analysis of the nature and difficulties of attempting such
findings or of their specific relevance. Judicial guidance must be inferred
from what the contrafactual alternatives are that are referred to in the
opinions and from the particular words used to state, usually tersely,
conclusions about contrafactual alternatives. The courts’ treatment of
the argument must be described and evaluated, therefore, on the basis of
passages rarely more thorough, for instance, than:

... if the [defendant’s] horse had been going at a less rate of speed,
the conclusion is irresistible that the [plaintiff’s] sled would have struck
the horse instead of the wagon, and, in all probability the injury would
have been greater. ... 69

As this passage suggests, the courts’ resolution of the argument
depends on the validity of contrafactual propositions that purport to be
particularized (e.g., detailing how the plaintiff would otherwise have been
hit by the defendant’s horse and wagon).70 Validity of the innocuous
generalization that different behavior by defendant would have had differ-
ent effects is evidently not regarded as persuasive that the necessary-
condition argument should be rejected.71 This position is probably
inevitable if the necessary-condition argument is to be accepted in any
case, since that generalization would usually be thought valid.

The argument is decided in the cases on the basis of the validity or
invalidity of a proposition that is specific in describing either the alterna-
tive behavior of the actors or how the injury would or would not have
been avoided. These particularized contrafactual propositions, however,
set out specifics that are only modest in detail,72 and they tend to specify
how the injury would have been avoided (or not) rather than the assump-
tions of time, position, and speed on which their conclusion is based.
These characteristics render the propositions relatively unreliable on the

68 See, e.g., cases cited note 1 supra.
70 See, e.g., cases cited note 1 supra. Cf. notes 41-43 supra.
71 See text accompanying notes 55, 60 supra; note 17 supra.
72 Compare, e.g., cases cited note 1 supra with paragraph preceding text accompanying
note 23 supra and text accompanying note 43 supra.
criteria of facts, because conclusions of how the injury would be avoided are unusually hard to validate in terms of odds, and what reliability they have depends heavily on the precise content of their assumptions.\textsuperscript{73}

Most of the cases appear to evaluate only one such contrafactual proposition, which may have been proposed by either party. They give no criteria for this limitation on contrafactual speculation, although presumably at least the parties have somehow chosen the particular proposition. The substantively neutral criteria for limiting speculation that would assimilate the process of validating it to that of fact statements do not permit selection of but one such contrafactual proposition,\textsuperscript{74} and the policy considerations which do permit such a selection are not identified in the cases. It thus seems likely that those considerations have not been specifically briefed, argued, or consciously identified.

Moreover, the ability to set odds on contrafactual propositions is assumed by the cases to be remarkably clear and the odds set seem unusually high, at least for propositions that are supposed to be validated in a process approaching that for statements of fact. For instance, such cases as those directing verdicts for defendants conclude that the injury "would" have been "unavoidable" (\textit{i.e.}, unavoided at a speed other than \textit{X}).\textsuperscript{75} This language apparently reflects belief in the odds favoring the propositions as better than even. In view of the difficulties of setting odds at all and of what may be the typical resulting unpersuasiveness of any odds that can be set, probabilities of that order of magnitude would

\textsuperscript{73} The opinions do not explicitly consider the different problems in believing \textit{whether} injury would be avoided as distinguished from \textit{how} it would be avoided, the \textit{assumptions} on which it would be avoided as distinguished from \textit{how} it would be avoided, and the conclusion that injury \textit{would} be avoided as distinguished from concluding that it would \textit{not} be avoided.

\textsuperscript{74} See section I, B, 3, "Neutral Restrictions on Historical Speculation in Validating Necessary-Condition Arguments," \textit{supra} in this part; section I, B, 4(b), "Applicability of Verification, Recurrence, and Observation to Belief in Contrafactual Propositions," \textit{supra} in this part.

not be expected. To obtain probabilities of that order of magnitude one must ordinarily restrict speculation radically (in accordance with some appropriate policy) to one or two or a few contrafactual alternatives each of which presents a narrow range of variables. Statements of such restricted alternatives are not calculated to approach statements of fact operationally, and whatever policy considerations define them are not indicated in the opinions. 

In those cases in which the courts expressly do consider more than one contrafactual alternative, the necessary-condition excuse seldom succeeds. This result is to be expected, for consideration of more than one alternative implies a broader range of contrafactual speculation, which makes it more difficult to validate any given contrafactual proposition. Since selection and validation of only one or a few specific contrafactual propositions is required to accept a necessary-condition argument, the uncertainty attendant on inability to set odds on any particularized proposition favors rejecting the argument.

In a few cases, on the other hand, a broadening of the scope of the speculative inquiry has explicitly favored the defendant. These are cases in which courts have said that the injury would have been equally avoidable if the defendant had driven at a speed greater than \( X \) as well as one less than \( X \). Hence, it is said, the argument that the injury would have been avoided at a speed less than \( X \) is not persuasive. If any justification for that conclusion exists, it is in legal policies with respect to speeding. On legally neutral criteria for validating matters of fact, defendant's alternative of driving at a speed greater than \( X \), which would have been considered negligent, can and should be excluded from the speculation.

Cases in which that alternative is nevertheless considered do not explain on what policy-dictated criteria it is relevant to the necessary-condition argument.

In short, the processes by which the courts have attempted to validate necessary-condition arguments in darting-out cases are unsystematic to the point of indicating a lack of control over the issue. In deciding whether contrafactual propositions were properly submitted to juries and

---

76 Cases in which the necessary-condition argument might most readily be validated in operations tending to approach those for matters of fact would seem to be Draxton v. Katsmirek, supra note 75; Wetherill v. Showell, Fryer & Co., supra note 75; Ford v. Trident Fisheries Co., supra note 75; Rouleau v. Blotner, supra note 75. See note 42 supra.

77 See, e.g., Wallace v. City & Suburban Ry., 26 Ore. 174, 37 Pac. 477 (1894); Yeager v. Gately & Fitzgerald, Inc., 262 Pa. 466, 106 Atl. 76 (1919); text accompanying notes 59–60 supra.


79 See text accompanying notes 26–27 supra; cases cited note 27 supra.
in indicating the detail and language in which propositions should be submitted, the courts have in effect made a number of choices that are rationally unavoidable. They have not, however, articulated awareness of these choices, of the competing arguments and the information relevant to decision, of the criteria governing their choices, or of whether those criteria are substantive policies or legally neutral standards operationally consistent with statements of fact. That the courts give no indication that these choices are ones of substantive policy suggests that they are not regarded as such. The courts’ description of the entire necessary-condition argument as one of “cause” or “cause in fact” to be decided in those terms by the jury tends also to show that it is considered to present an irreducible, unanalyzed question free of defining policy choices. Relatively specific contrafactual speculations comprise the courts’ discussions, which confirms this conclusion. It seems a safe inference that the use of causal language to characterize the necessary-condition argument has misled courts into regarding it on the simplistic model of a proposition of fact submitted to the jury in conditions relatively independent of substantive legal policies and purposes. The result is that rationally unavoidable determinants of the argument, which reflect policy choices even in processes that are supposed to approach those for matters of fact, have been entirely ignored. In consequence, it is difficult to harmonize the decided cases in terms of their facts. One cannot know what kinds of contrafactual considerations will be judicially isolated for speculation, or in what ways they will be treated as relevant. The selection of contrafactual alternatives seems unpredictable relative to other matters in the litigation. Disposition of necessary-condition arguments seems in turn undisciplined. Moreover,

80 See Part I, at 483.
81 See Malone, Ruminations on Cause-in-Fact, 9 Stan. L. Rev. 60 (1956).
82 Decision of necessary-condition arguments which cannot be validated as statements of historical particulars could be made to turn on assignment of the burden of persuasion. Use of a burden of persuasion is inevitable, not only in litigation, but also whenever action or decision is inescapable whether or not all relevant propositions have been established adequately to justify belief or disbelief. The universality of burdens of persuasion suggests that using one might not seem a major departure from the operational characteristics of many statements of fact. Those characteristics would be enhanced if assignment of the burden were based on generalized attitudes toward the administration of doubt in any decisional context.

However, the burden of persuasion on any given issue depends heavily on the substantive law at issue. See Cleary, Presuming and Pleading: An Essay on Juristic Immaturity, 12 Stan. L. Rev. 5 (1959); Coons, Approaches to Court Imposed Compromise—The Uses of Doubt and Reason, 58 Nw. U.L. Rev. 750, 756-57 (1964). Moreover, the relevant substantive law is not general. For instance, it might be said that the burden of a necessary-condition argument should be assigned in accordance with its formal character as a plea in confession and avoidance (i.e., to the defendant). In answer, the argument might appear
there is no reason to believe that juries, in deciding necessary-condition issues submitted to them, have exercised any greater analytic control over the issue.

The recurrence of policy choices in validating necessary-condition arguments reveals the graduated, qualitative nature of characterizations of matters of "fact." The processes of validation are dependent on matters of choice in varying degrees. Differences of degree exist in terms of the dependence of validation on processes of verification and direct observation, in terms of the narrowness or breadth of the range of policies that would be relevant as one proceeds to validate a proposition, and only to be a denial of the plaintiff's allegation of negligence. See note 17 supra. Similarly, the burden cannot be assigned to the defendant on a formal and general analogy to contributory negligence (i.e., in view of plaintiff's role in darting into the car's path), for analogy to last clear chance cases (i.e., in view of plaintiff's claim that he should recover despite his role) is perhaps equally formally applicable (and then it would be plaintiff's burden).

One might identify a generalized policy in negligence law preferring the here-and-now facts of injury historically suffered to exculpatory, speculative arguments that somehow injury would have occurred anyway. Such a policy against the offensive use of uncertainty may well exist with respect to established injuries toward which the involved defendant's basis of duty is clear. See, e.g., text accompanying notes 100-01, 105-07 infra; note 107 infra. But it need not follow that the burden of persuasion will be assigned to the party likely to benefit from an exculpatory necessary-condition argument (i.e., the defendant). For instance, in cases in which behavior characterized as negligent is a failure to maintain safeguards against the aggressions of others, the defendant's duty is relatively lenient. Perhaps the scope of such a rule should be extended only with caution. One means of doing that would be to assign the risk of losing close cases (i.e., the burden of persuasion) to the plaintiff. On the other hand, if the character of defendant's involvement in the injury is more aggressive, the rule of conduct designed to avoid such involvements may be more onerous and might call for assigning the risk of losing close cases to the defendant. See, e.g., White v. State Farm Mut. Auto. Ins. Co., 222 La. 994, 64 So. 2d 245 (1953); Sowles v. Moore, 65 Vt. 322, 26 Atl. 629 (1893) (burden of persuasion of necessary-condition arguments apparently assigned to party charging negligent failures to safeguard); Part I, at 476, 487-90.

In short, particularistic analysis of the rules of conduct and competing equities peculiarly associated with darting-out cases seems unavoidable in attempting to assign the burden of persuasion of the necessary-condition argument. Established "doctrines" are too generalized to be persuasive that any given doctrine is a preferable analogy. Hence, decision of necessary-condition arguments in terms of assignment of the risk of failure to validate the argument as an historical particular does not approximate the operational characteristics of statements of fact.

For analysis of the substantive law in darting-out cases and its role in assigning the burden of persuasion or in otherwise deciding the cases, see part III of this Article. The decided cases do not discuss the burden of persuasion of necessary-condition arguments. The effort to extract a reasoned pattern of assignment of the burden from the language of the courts in deciding whether contrafactual propositions should be submitted to the jury (e.g., whether it "might" have found that the injury "would" have been "avoided") seems inconclusive. See cases cited note 75 supra. Cf. RESTATEMENT (SECOND), Torts § 433C(1) (Tent. Draft No. 9, 1963) (burden of proof that the tortious conduct caused the harm is, in general terms, plaintiff's).
in terms of the generality of dispositive policy arguments. To the extent that the process of validation is relatively dependent on techniques of verification or observation, that the necessary policy choices are narrow matters of intellectual methodology, and that the dispositive policy arguments are highly generalized and widely applicable, the process of validation tends to approach that for matters of fact. The danger of an unreflecting assumption that the matter in issue is one "of fact" is then relatively minimized. On these criteria, the necessary-condition argument appears relatively unlike a statement of fact, and the process of its validation in the reported cases has probably been unreliable.

The critical role of policy choices in validating necessary-condition arguments does not mean that the argument should not be used. It means only that the unevaluated assumption that the argument is a matter of "cause in fact" obscures reasoned decision. That courts readily assume and believe that the argument is a matter of "fact" is important evidence in determining its legal relevance. The following analysis attempts to show its relevance in this light. When that is understood, the necessary-condition argument might be validated, not on the inapplicable model for statements of facts, but rather by reference to policies consciously tailored for use in the validation process or calculated to reflect the legal purpose of the argument.

II

RELEVANCE OF STATEMENTS THAT NEGLIGENCE "CAUSED" INJURY: THE CONCEPT OF WINDFALL

The preceding analysis starts from the courts' uniform assumption that the question whether defendant's "negligence" in speeding "caused" the injury in a darting-out case is to be treated as a statement of historical fact. The analysis shows that any answer is relatively unsusceptible to validation on the operations applicable to statements of historical fact; it can neither be said to be true or false nor can any odds on it ordinarily be set. The operations through which the statement could be validated entail choices reflecting substantive policies of negligence law, in addition to larger neutral policies of intellectual methodology in estimating likelihoods. However, the courts do not consider any of these policies explicitly. That oversight, and the vagueness of the courts' language in calling the question simply one of "cause in fact" to be decided on a yes-or-no basis, indicate that darting-out cases are being decided without regard to unavoidably relevant considerations. In this sense, the decisions may be considered nonprincipled or nonreasoned.

83 See Part I, at 463-65.
To rationalize the courts' treatment of the cases, it is necessary to analyze and apply policies that the courts have neglected. But policy may be used in more than one way. For instance, one could entirely abandon arguments based on whether "the speeding caused the injury," since they cannot be validated as statements of historical fact, and decide whether liability is an appropriate sanction on the basis of independent legal policies. Similarly, as a matter of legal policy, one could give a different primary content to necessary-condition arguments; treat them as stating only that "Children also dart into the paths of nonnegligent, nonspeeding drivers and are hit"—a statement that can be validated as a species of factual generalization; and use that as an argument to decide whether liability is an appropriate sanction. On the other hand, one could attempt to validate specific statements concerning whether "the speeding caused the injury" through policy-dictated operations appropriately fashioned to them. Or one could choose an abstract framework for speculation and set "odds" on contrafactual propositions within that framework without attempting to estimate the likelihood of the framework itself. Finally, one could attempt to decide the issue whether liability is an appropriate sanction on a policy basis that is consistent with the purposes of asking whether "the speeding caused the injury" but without trying to validate any necessary-condition arguments.

Which of these uses of policy is preferable depends on an evaluation of the legal purposes of asking whether "the negligence caused the injury." One cannot decide, for instance, to abandon necessary-condition arguments entirely without appraising their purpose. To make that evaluation, one must know what that legal purpose is. Accordingly, the following discussion seeks to identify the legal purpose of the necessary-condition argument. Part III of this Article will then attempt to analyze the appropriate role of policy in deciding whether to sanction speeding with liability in darting-out cases, in light of the identified purpose of that argument.

The order of the analysis in this discussion is as follows: First, an attempt is made to show the purpose of the necessary-condition argument in a small group of cases forming a relatively clear pattern and in which necessary-condition arguments can be validated relatively successfully after the fashion of statements of historical particulars. Next, an attempt is made to generalize from those cases, and from other evidence, to a model of the legal relevance of any necessary-condition argument. The model appears to explain, and, in turn, seems verified by, judgments of fairness in a variety of competitive judicial and extrajudicial situations. This model embodies a competitive causal policy that will be called the "windfall" argument. Finally, the discussion shows that what makes
necessary-condition arguments relevant in darting-out cases is their place in the windfall argument. Thus, the discussion shows the relationship of the windfall model and the foregoing analysis of the validation of necessary-condition arguments.

A. The Legal Purpose of Necessary-Condition Arguments

There are some cases in which necessary-condition arguments are validated relatively successfully along the lines of statements of historical fact. These would include any cases in which defendant negligently starts or loses control of a fire, which then burns plaintiff's building. Thereafter, a second fire, with which defendant was not involved, sweeps over the same property. Defendant argues that he is not liable since the second fire would have done the same damage, even if he had not been negligent. His negligent conduct was not a necessary condition of the injury.

This argument is relatively susceptible to validation on operations for validating statements of historical particulars. The occurrence of the external events of the second fire drastically curtails the range of counterfactual speculation independently of legal policies or the litigation context. The validity of speculation remaining with respect to the possible effects of the first fire on the course of the second one is relatively dependent on reliable meteorological and scientific generalizations. Speculation with respect to the extent of the damage the second fire would have inflicted alone is also relatively dependent on observation of what each fire in fact did do and on reliable generalizations of science.\(^8\)

Since the necessary-condition argument is relatively susceptible to validation, the pattern of the decisions should be relatively principled. It therefore should indicate what the legal relevance of valid necessary-condition statements is thought to be. As it happens, there are few cases precisely involving two fires. There are, however, additional cases that are closely analogous and a clear consensus among the commentators as to expected results. These authorities justify stating a simple, reliable pattern of decision.

If at the time defendant's fire destroyed the property, no second fire was in existence, defendant is ordinarily liable for the full value of the property.\(^5\) If the second fire was in existence at that time and was negligently started or lost control of by a third person, defendant is

---

\(^8\) See section I, B, 4(b), "Applicability of Verification, Recurrence, and Observation to Belief in Counterfactual Propositions," supra in this part.

\(^5\) See FLEMING, TORTS 182 (2d ed. 1961); PROSSER, TORTS § 42, at 256 (3d ed. 1964); Peaslee, Multiple Causation and Damage, 47 HARV. L. REV. 1127, 1134 (1934). In the typical situation, of course, no second fire ever occurs. In some circumstances, unexpected post-destruction events might be taken into account in determining the damages. See text accompanying note 96 infra.
again liable for the full value. But if the second fire, although already existing, was not negligently started or lost control of, defendant is liable only for the value of the destroyed property discounted, as of the time his fire destroyed it, by the threat of the impending second fire. Discounting may reduce the property almost to worthlessness. However, if the two fires merge before or upon reaching the property, defendant is liable for the full value (if his involvement was "substantial"), whether or not anyone was negligent in starting or losing control of the second fire and regardless of the time the second fire came into existence. If the two fires simultaneously or consecutively destroy ascertainably different parts of the property, defendant is liable for his apportionable share of either the full or depreciated value, in accordance with the foregoing results.

1. The Relevance of Factual Clarity in Defining Plaintiff's Claim

Description of the purpose of necessary-condition arguments may best begin by considering the case in which defendant's argument seems most successful. Here, the second fire threatening plaintiff's property already exists at the time defendant's fire destroys it and the threat was not negligently inflicted (but was, for example, from a natural forest fire). Plaintiff recovers only the value of his property discounted by the second fire's threat. Property threatened with destruction invariably has a lower market value than otherwise. The extent of depreciation reflects

---

86 See Fleming, Torts 182 (2d ed. 1961); Prosser, Torts § 42, at 256 (3d ed. 1964); Peaslee, supra note 85, at 1137. There may be no cases directly in point, perhaps because of the difficulty of determining in the suit that the second fire was negligently started. See Stene v. Evans, [1958] 14 D.L.R.2d 73, 76-78 (Alta. Sup. Ct., App. Div.), affirming [1958] 11 D.L.R.2d 187, 193 (Alta. Sup. Ct. 1957). In Rouleau v. Blotner, 84 N.H. 539, 152 Ad. 916 (1931), the defendant failed to signal while making a left turn. Plaintiff's driver, travelling in the traffic defendant was trying to cross, saw defendant from 150-200 feet away but thereafter kept a lookout of only 20 feet ahead. Thus, when he next saw defendant he was too close to avoid a collision. The court held defendant entitled to a directed verdict. Although suggesting that plaintiff's driver was negligent in his lookout, the court appears not to have treated him as a concurrent tortfeasor. The opinion, by Peaslee, C.J., may not be consistent with Peaslee's later article, supra. In any event, the opinion is further complicated by the court's doubt that a finding of defendant's failure to signal was justified on the evidence. Cf. Prosser, Torts § 44, at 265 (3d ed. 1964) (concurrent tortfeasors).


88 See Part I, at 435-87.


both the clarity of the threat and the gravity of the evil threatened. In routine, commonplace appraisals of property, various remote, incalculable threats are part of the mass of environmental considerations that influence the market and determine values. Acceptance of the necessary-condition argument amounts to no more than a policy decision that the normal process of appraising the value of plaintiff’s property should include the radical change that occurs when a predictably threatening fire exists.

In making the policy choice whether to take account of the existence of a radical threat in valuing property, no one would think it sufficient merely to conclude that the defendant did or did not “cause” the loss of specified property “worth” a specified amount. We are too familiar with property appraising to find any utility in such a conclusion. We know that the instant case is simply a special problem in property appraisal; the plaintiff’s lost interests are defined in terms of his remaining opportunities or depreciating uses. The definition of such interests depends on probabilistic predictions that are never fully susceptible to verification. Their reliability depends on the clarity of the events with respect to which predictions are made and on our familiarity with the type of appraisal techniques in question.91 One’s judgment whether to take account of the radical change effected by the second fire depends on such considerations of clarity and feasibility. It also would entail evaluation of the competitive causal policy that losses that can be regarded as the random effects of nature’s unusual, indifferent forces should not be involuntarily shifted from where they fall.92 The decision reflects a judgment that the second fire should be regarded as just a special case of the effects of these forces and innumerable other unaccountable factors that affect the market in routine valuation of property.

The rationale of a policy choice to take account of a radical reduction in the value of the plaintiff’s property is that he should recover no more than it was “worth,” in some objective sense. Since random, radically destructive events recur indefinitely, an estimate of the worth of plaintiff’s property could be made at the time of trial that would take account of events occurring subsequent to the destruction of the property. These events might be thought to show what, in hindsight, the worth of the property really was. For instance, at the time of the litigation, one can know whether a second, nonnegligent fire, which existed at the time of the destruction, in fact did burn over the plaintiff’s property or whether it was a threat that was never realized. One can know that second fires

91 Standard examples in negligence law would concern damages for impairment of earning capacity in personal injury actions and loss of future earnings or support in survival or wrongful death actions. See, e.g., McCormick, Damages §§ 86, 96, 98-99 (1935).
92 See text accompanying notes 35-36 supra; Part I, at 475-76, 509, 511.
existed at the time of destruction, although neither party knew it then. One can know that fires nonexistent and not measurably predictable at the time of destruction did occur later and did burn over the plaintiff's property.

Whether to use information provided by hindsight in framing the probabilistic predictions that determine the value of the plaintiff's loss is a matter of judgment. There is no reason to limit those predictions to the information that the parties would or should have had at the time of the destruction, or of their conduct. What the property might bring on the market is not dependent solely on what the parties should have known. Thus, if the defendant did not know of the second fire's existence, the value of the property would still be discounted in litigation by reference to that threat. If a threat known at the time of destruction did not materialize, perhaps recovery should not be reduced by reference to it.

A number of considerations would influence judgment as to what hindsight information should be the basis of estimates of value. One is the interest of judicial administration. It would be reason enough to refuse to reopen final judgments in order to revalue plaintiff's loss in light of post-litigation environmental changes, no matter how dramatic, that might affect it. Another consideration is the imponderable character of random events: For every post-destruction event that may reduce the estimate of value, there may be some other event that would enhance it, such as subsequent new uses of the neighboring property. There is no way to know whether these will cumulate in favor of one party, and there will often be no way to know of the existence of all of these events at the time of the litigation. They may become so numerous and diffuse as to be intellectually unmanageable and can be rationally disregarded without favoring either party.

---

93 Cf. Part I, at 502-03 (hindsight in determining whether an injury is protected against by a rule of conduct).

94 Not to take into account the failure of a threat to materialize may stress theory over the here-and-now facts of economic injury to the plaintiff. See Dark v. Brinkman, 136 So. 2d 463 (La. App. 1962) (subsequent unrelated death of plaintiff reduces personal injury damages); McCormick, DAMAGES § 86, at 303-04, § 94, at 337-38 (1935); note 107 infra. On the other hand, it is difficult to provide criteria for selecting which post-destruction changes in the environment to take into account in the damages. Failure to select even those that are demonstrated to have occurred does not amount to a complete exclusion of such events from the appraisal, for the likelihoods of such events will be reflected in the general environmental conditions affecting the market value as of any given time. Cf. Pealne, supra note 85, 1135 (value as of the time of injury exclusively).

95 Such random events potentially affecting value are the post-destruction analogue to the random imponderables that may be omitted from contrafactual speculation in darting-out cases. See text accompanying notes 33-34 supra. These post-destruction considerations differ, however, in that some of them can be identified and their import relatively clearly assessed.
Additional considerations appear important in the courts’ exercise of judgment as to the role of hindsight in valuation. Some decisions indicate that an estimate of the worth of plaintiff’s claim should also reflect some radical environmental changes which neither existed nor were measurably predictable at the time of the destruction but which did in fact occur later. For example, if the victim in a suit for personal injuries should die before judgment in the trial court, during the course of events independent of the defendant’s behavior, damages would not be based on the victim’s statistical life expectancy when defendant injured him but on the actual duration of his life. Post-destruction fires that burn over plaintiff’s property prior to the trial court’s judgment may seem similar to unrelated events causing the plaintiff’s death; on the other hand they differ in the relative ambiguity of their effects on the plaintiff’s interest. Whether to take account of the second fire in valuing those interests is obviously a question of judgment.

Use of hindsight in this fashion involves the court in a process of exercising judgment akin to that in deciding whether to sanction wrongdoing with liability for a particular injury. In the personal injury example in which the plaintiff dies during the course of collateral events, the defendant’s involvement in the victim’s injuries is in fact a member of some set of conditions sufficient to bring about the subsequent death (i.e., by historically preceding it). Hence, one must decide whether it is relevant to assign the economic consequences of the death to the defendant (i.e., whether to treat the death as “collateral” to, or “independent” of, his behavior for purposes of liability). One’s judgment must permit principled distinction of these radical changes in the environment from other post-destruction events that would not be used to affect estimates of valuation.

The reliability with which one can decide that radical environmental changes took place and can identify their hypothetical bearing on valuation contemporaneous with the destruction would be critical in the exercise of such judgment. Two-fire cases present instances of maximum clarity. Contrafactual speculation is circumscribed by the immobility of real property and the narrowness of the owner’s alternative of selling it before the radical change in the environment occurred. The remaining speculation is reliable because whether the environmental change occurred is subject to observation, and the effects of defendant’s fire on subsequent radical changes (e.g., its effects on the course of a second fire) depends heavily on applicable, reliable generalizations (e.g., those of meteorol-

---

97 See text accompanying note 98 infra.
ogy). Hence, the question whether defendant's fire was a necessary condition of diminution in value of plaintiff's property is operationally similar to a statement of an historical particular. An answer to that question can thus be used in valuing plaintiff's loss.

Contrafactual speculation in darting-out cases is quite different. It would resemble the personal injury example (in which plaintiff dies in collateral events) if the order of events were reversed there, so that the defendant did kill the victim but argues that he would have died independently of defendant's behavior anyway. For instance, the defendant might show that the victim was on his way to board the Titanic for its fatal voyage when defendant killed him. On that showing, the plaintiff's damages would not be reduced even though the odds of the victim's reaching the ship and of his eventually going down with it might seem susceptible to estimation.

The courts' preference seems to be for the here-and-now facts of injury that has occurred. This would help account for their willingness to consider to the fullest extent radical, demonstrable environmental changes and to exclude entirely from valuation those that are not operationally closely akin to historical particulars. It seems a safe description that neither party can use uncertainty as an offensive argument with much success, the plaintiff to show that the second injury he in fact suffered should not be considered, or the defendant to show that the injury he in fact inflicted would have been inflicted by someone else.

The point of this descriptive discussion is to indicate the nature and importance of policy choices in valuation. Choice concerns what information to use in formulating probabilistic predictions of the relationship between environmental states of the property and market reactions. Prediction and policy choice are made after the fact of injury, in the litigation. The operational characteristics of this process of judgment appear indistinguishable from those of adjudging in a particular case whether "the result (i.e., the plaintiff's injury) is within the scope of the risks by reason of the prospect of which defendant is considered negligent"—a process of judgment that is undertaken to decide whether wrongdoing should be sanctioned with liability for the injury. In short, the process of valuing the loss in the two-fire cases is another special case of exercise-

---

98 See section I, B, 4(b), "Applicability of Verification, Recurrence, and Observation to Belief in Contrafactual Propositions," supra in this part.

99 See PROSSER, TORTS § 42, at 256 (3d ed. 1964); Peaslee, supra note 85, at 1139-40.

100 Such a preference underlies the analysis in Peaslee, supra note 85, at 1137-39. See note 110 infra.

101 See note 107 infra.

102 See Part I, at 498-500.
ing judgment to determine the appropriateness of sanctioning wrongdoing with liability for the particular injury complained of.\textsuperscript{103}

It is a special case, because it is a question of determining only the quantitative extent of the sanction (\textit{i.e.}, the value of the property). The purpose of the necessary-condition argument in the two-fire case (\textit{i.e.}, the argument that injury would have been inflicted by a post-destruction radical environmental change) is to contest the propriety of liability as a sanction. The resolution of the argument is to scale down the sanction. The sanction is scaled down in accordance with probabilistic predictions of what the property was worth, that is, on the basis of statements approximating ones of historical fact. Success of the necessary-condition argument depends rather directly on the degree to which these predictions can be operationally regarded as matters of fact susceptible to validation in terms of odds.

The implications that begin to emerge for the darting-out cases are relatively clear: The purpose of the necessary-condition argument in those cases is to contest the appropriateness of liability as a sanction for speeding. The ideal solution of the argument would be to scale down liability. The quantitative criterion on which liability would be scaled down is the odds on the relevant contrafactual propositions. The difficulty is that no odds can be set on the contrafactual propositions, unlike those typically applicable in two-fire cases.\textsuperscript{104}

In some two-fire cases, the necessary-condition argument cannot be validated in terms of odds. Such cases seem to reject the argument entirely and hold the defendant for the full, undiscounted value of the property. If predictions of lower values cannot be made with unusual clarity, the uncertainty is not taken account of by simply reducing the odds to allow for doubts; rather, uncertainty is not taken into account at all.\textsuperscript{105} The important and persuasive example of this refusal to use uncertainty is provided by the case in which the two fires merge before reaching plaintiff's building. Defendant is liable for the full, undiscounted loss if his involvement in the injury is "substantial."\textsuperscript{106} Speculation that his fire might not alone have done the entire damage or that the fire

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{103} See McCormick, \textit{Damages} § 72, § 76, at 273-74 (1935); Malone, \textit{Ruminations on Cause-in-Fact}, 9 Stan. L. Rev. 60 (1956); Feaslee, \textit{supra} note 85. \textit{Cf.} Coons, \textit{Approaches to Court Imposed Compromise—The Uses of Doubt and Reason}, 58 Nw. U.L. Rev. 750 (1964) (principled adjudication in cases of uncertainty may require compromise of damages rather than assignment of entire cost of injury to one party).
\item \textsuperscript{104} See section II, C, "Summary: Avoiding Windfalls as the Legal Purpose of Necessary-Condition Arguments in Darting-Out Cases," \textit{infra} in this part.
\item \textsuperscript{105} \textit{Cf.} authorities cited note 53 \textit{supra}.
\item \textsuperscript{106} See, \textit{e.g.}, Anderson v. Minneapolis, St. P. & S. Ste. M. Ry., 146 Minn. 430, 179 N.W. 45 (1920); Carpenter, \textit{Concurrent Causation}, 83 U. Pa. L. Rev. 941, 951-52 (1935).
\end{itemize}
\end{footnotesize}
with which it merged could have done the damage independently is not used to discount the extent of defendant's liability. The difficulties of such speculation are obvious and intense. Respect for the limits of feasible explanation and a preference for the here-and-now facts of injuries that did occur over exculpatory speculation account for the decisions to sanction defendant's conduct on the basis of an all-or-nothing assignment of the full cost of the injury.\textsuperscript{107}

The emerging implications for the darting-out cases here, where no odds can be set on the necessary-condition argument, may not be clear even though the implications of the two-fire cases as to the \textit{purpose} of the argument seems clear.\textsuperscript{108} It may be that disentangling the effects of defendant's fire from those of the fire with which it merged is no more difficult than disentangling the effects of defendant's having driven at speed $X$ from the hypothetical effects of his having driven at some other speed. It may therefore also be that unclear darting-out cases must be decided on the basis of an all-or-nothing assignment of the full cost of the injury. Assuming such a similarity between two-fire and darting-out cases, however, the plaintiff's involvement in his injury in darting into defendant's path is reminiscent of contributory negligence cases and may call for a result different from the two-fire cases, in which plaintiff is relatively innocent. Hence, any all-or-nothing assignment of the cost of the injury requires a careful analysis of the unique combination of substantive rules governing the parties' behavior in darting-out cases.\textsuperscript{109}

In summary, the legal relevance of necessary-condition arguments in two-fire cases lies in the function of determining to what extent liability is an appropriate sanction for defendant's wrongdoing. The purpose of the necessary-condition argument in that function is to provide a rational device for quantitatively valuing the loss. The device which the argument

\textsuperscript{107}See text accompanying notes 115-16 \textit{infra}. A variety of negligence cases seems to support inference of a generalized, although not invariable, attitude of caution toward the use of uncertainty as an argument against liability for demonstrated injuries, at least where the basis of defendant's duty is clear. See, \textit{e.g.}, Schulz v. Pennsylvania R.R., 350 U.S. 523 (1956), \textit{Part I}, at 493 n.97; Summers v. Tice, 33 Cal. 2d 80, 199 P.2d 1 (1948), \textit{Part I}, at 494 n.99 (cases of demonstrated injuries and persuasive bases of duty with historical details of injury uncertain); \textit{Restatement}, \textit{Torts} § 432, comment \textit{c} (1934) (defendant a substantial factor in spite of "mere possibility of same harm"); \textit{Fleming, Torts 181} (2d ed. 1961) (examples of concurrent and alternative tortfeasors); note 23 \textit{supra} (apportionment to avoid no liability). A complementary attitude seems sympathetic to the use of uncertainty to permit compensation for demonstrated injuries, at least if the speculation requires only validation of relatively generalized contrafactual statements. See, \textit{e.g.}, \textit{Restatement}, \textit{Torts} § 479(b) (iii) (1934) ("unconscious" last clear chance); 2 \textit{Harper & James, Torts} § 19.5 (1956) (res ipsa loquitur); note 17 \textit{supra} (hypothetical effectiveness of altered, nonnegligent behavior).

\textsuperscript{108}See text accompanying note 104 \textit{supra}.

\textsuperscript{109}See generally part III of this Article. Cf. discussion in note 82 \textit{supra}.
provides is the probabilities or odds in terms of which it is validated (i.e., the predictions of the market that comprise appraisals). If odds cannot be clearly set, the loss is not scaled down and the defendant pays for the entire cost of the injury. In darting-out cases, the relevance of the necessary-condition argument also seems to be to determine the extent to which liability is an appropriate sanction. The decisions, however, seem to provide no principled guidance for dealing with darting-out cases when odds on the necessary-condition argument cannot be set.

2. The Objective Quality of the Parties' Claims

The premise of the preceding discussion of the relevance of necessary-condition arguments in two-fire cases has been that plaintiff is entitled to no more in damages than what his building was objectively worth. "Objective worth" has at least two connotations. In one sense, it means only that the plaintiff's injury is valued by reference to data independent of the parties: The value of the property is determined by what it would be expected to bring on the market. A second sense of "objective worth" is more important here: The plaintiff's claim is thought to be definable in terms of fairness, by reference to some disinterested standards. For instance, what plaintiff's building is worth at the time defendant's fire destroys it depends, for purposes of tort liability, on whether the threatening second fire was of negligent or nonnegligent origin. The market value of the building would not differ depending on whether someone might be liable for the second fire. Nevertheless, the distinction in the recovery in the two cases is thought to be fair.

Consideration of this variable of the negligent or nonnegligent origin of the second fire helps describe the concept of fairness involved. If the behavior of some third person in starting or losing control of the second fire would be characterized as negligent, the plaintiff can recover from the defendant the full value of the property, undepreciated by the threat of the second fire.110 To deny plaintiff the full value of his property by

110 A classic justification for this result is that the defendant has deprived the plaintiff of his cause of action against the third person who started or lost control of the second fire. The value of that cause of action (undiscounted by the risk of losing it) plus the value of the property when destroyed by defendant (i.e., depreciated by the threat of the second fire) equal the total value of the property. See Peaslee, supra note 85, at 1137-39. However, this rationale seems applicable against the third person as well as the defendant. By creating the value-depreciating threat to the property, the third person could equally be said to have deprived the plaintiff of the value of a cause of action against the defendant for the full amount of the property (leaving plaintiff only a cause of action for the depreciated amount). It is only an assumption—not made, for instance, in cases of nuisance—that the third person's basis of duty must be historical involvement in some physical damage that accounts for the further assumption that there is no cause of action against him. See id. at 1139. An appropriate solution would be to hold the defendant liable for the full, undepreciated value (i.e., the depreciated value plus the lost cause of action)
permitting the negligent defendant and the negligent third person both to argue successfully that he is not liable because the other is seems absurd. It seems absurd because of some notion that the plaintiff's claim can be stated against the entire class of those subject to the fault system. This is a function of one aspect of our conception of rules in a fault system. They are taken as giving a "right" to compensation if someone must answer for the injury under them, and the plaintiff would be thought deprived of that right if neither negligent person is required to pay.

Similarly, the defendant's "rights" depend on the same conception of rules in a fault system. That conception seems to be, in part, that an individual's position under the rules can be determined to some extent in isolation of the position of anyone else and that the individual's rights are determined in relation to the entire class of rules applicable in the particular litigation. That class of rules is determined by the class of individuals relevant to the litigated fact situation. For instance, in the case in which a negligent third person could be liable for the second fire, one reason it does not seem unfair to hold the defendant for the full value of the building has to do with the fault rule applicable to the third person. The compensation rule governing the third person's relationship to the plaintiff is the same as that governing the defendant's relationship to the plaintiff. The same rule governs both the defendant and the third person, and it thus provides no guidance for a preference between the two sources of compensation that would favor the defendant. Since the defendant could be held for the full value if there were no second fire and since there is no other relevant rule under which there would be no liability in the fact situation, the defendant has nothing on which to base an independent claim of unfairness in being held for the full cost of the injury.

However, if no one could be liable for the second fire, the defendant's rights as defined by the entire class of rules relevant in the fact situation might seem different. At least there is a basis for a difference in view of the presence of a compensation rule different from the one governing his relationship to the plaintiff. That different rule is made relevant by the presence of a nonnegligent potential source of liability. That rule is that the random effects of indifferent calamities are not to be shifted involuntarily from where they happen to fall. Defendant's argument is that to make him pay the full cost of plaintiff's injury is inconsistent with that and the third person liable for the amount of depreciation, and to allow contribution between the defendant and the third person for the amount of the depreciation. See Part I, at 494 n.99. Cf. Carpenter, supra note 106, at 950-51.

rule. Just as the plaintiff's claim is defined by the entire class of those subject to the fault rules, the defendant argues that his rights are defined by the entire class of rules made applicable to the litigation by the class of all those involved.

In short, the litigating parties' rights are not only thought of as the reciprocal of each other. Rather, the rights of each are independent of the other to the extent that rules governing competitions with third persons seem relevant on the facts in litigation. This independent or objective quality of the parties' claims may account for many instances in which it seems inadequate to decide whether to sanction wrong-doing with liability by saying simply that the "innocent plaintiff" should be preferred to the "guilty defendant." In deciding whether the "guilt" is relevant to the particular injury, we often do not believe that the choice is unavoidably between two claims that can be regarded on an egalitarian, per capita basis. It may seem more equitable that the "guilty" defendant not bear the loss in view of his relationship to a third person source of compensation.

3. Reconciling Inconsistent Objective Claims

Ordinarily in negligence litigation, the claims of the competing parties are reciprocal. All rules involved will apply equally to both plaintiff and defendant and their claims will be quantitatively equivalent. The entire cost of the injury (social costs and litigation expenses aside) is to be neatly reallocated to the defendant or borne by the plaintiff.

In some situations, however, the parties' claims do not appear quantitatively identical. These include situations in which the parties' relationships to third persons independently affect their respective claims. On the traditional assumptions of the fault system, the parties are not equitably alike for all purposes, and a simple per capita sharing of the cost of injury may be arbitrary. Moreover, the harm must be allocated on an all-or-nothing basis. In these circumstances, a rational means of adjustment within the confines of the fault system will have to define the legal harm as less than the entire cost of the injury.

---

112 A description of the function of determining which third persons and which rules are relevant to the particular fact situation, and a more complete description of the "objective" quality of the parties' claims, are attempted in section II, B, "Windfalls," infra in this part.

113 See text accompanying note 128 infra.


116 See Malone, supra note 103. No fixed or mutually exclusive primary contents are claimed for "legal harm" and "injury." For purposes of this discussion, they distinguish the amount for which the defendant is or may be liable from the amount plaintiff would need to be made whole.
fendant's objective claim is to be liable for something less than the entire injury, and the plaintiff's harm is valued at less than his injury, the competitors' claims are brought into harmony and the entire legal harm can be assigned on an all-or-nothing basis.

A thesis of this Article is that people in fact think about competitive situations in this manner and that commonly operating in their thinking is a competitive causal policy to the effect that it is desirable to adjust quantitatively what appear to be the parties' inconsistent objective claims. The two-fire cases suggest that necessary-condition arguments are designed to harmonize the parties' apparently inconsistent objective claims by defining harm as less than the cost of the injury. Assuming that this policy is generally regarded as persuasive in sanctioning wrongdoing with liability, its failure in the merged two-fire cases reflects a practical inability to work a quantitative solution. In such cases, under the traditional fault system there is no way to share the loss. The harm must be equated with the injury's cost and be assigned, on an all-or-nothing basis, to one or the other party, who thus bears more than this "objective" due.

This competitive causal policy to which necessary-condition arguments refer may now be described by means of stating a generalized model of the policy.

B. Windfalls

The competitive causal policy favoring a quantitative resolution of the parties' inconsistent "objective" claims will be referred to as a policy of avoiding "windfalls" at defendant's expense. A windfall is thought to occur in the following circumstances. Assume any body of accepted or understood social rules for the distribution of measurable advantages. A

\[\text{B. Windfalls}\]

\[
\text{The competitive causal policy favoring a quantitative resolution of the parties' inconsistent "objective" claims will be referred to as a policy of avoiding "windfalls" at defendant's expense. A windfall is thought to occur in the following circumstances. Assume any body of accepted or understood social rules for the distribution of measurable advantages. A}
\]

---

117 The general characteristics of such policies, which are assumed in this discussion, are described in Part I, at 475, 477-78.

118 The term "windfall" is used in the empirical belief that the primary content common to all its uses in assessing economic responsibility for losses is roughly approximated by the description which follows in the text. The discussion also assumes that those who use the term for the purpose of determining the extent of liability as a sanction for wrongdoing, on reflection, consider it inapplicable to arguments not within the following description. For instance, it seems likely that most speakers could be persuaded that the concept it denotes is not involved in this statement: "The windfall—for rarely does a victim in a mail fraud get his money back—amounted to 25 cents on a dollar." N.Y. Times, July 4, 1964, p. 10, col. 5 (city ed.) ([Nonnegligent] Victims of Fraud Get U.S. Windfall). See note 124 infra (reciprocal concept of "unjust deprivation").

"Windfall" does not appear, however, in the opinions in darting-out cases. Moreover, it may be a term of art in other contexts. See, e.g., Reid, Consumption, Savings and Windfall Gains, 52 Am. Econ. Rev. 728, 729 (1962). In any event, usage is relied on here simply as a clue to the content of the competitive causal policy and as some confirmation of the accuracy of its description. How any class of speakers does or would use the term is itself an inadequate criterion for identifying the argument or determining its validity for legal purposes. See Part I, at 466-71.
windfall is the unearned and unexpected receipt of a measurable advantage inconsistent with the rules of distribution.

Money and liquidation of money obligations are the most obvious forms of measurable advantages, but anything generally valued could be included if it is a roughly quantifiable, concretely identifiable, and morally neutral result\(^\text{119}\) of conduct, including, for instance, winning a race, receiving a prize, or having a fine dinner. Since such advantages are measurable and their receipt identifiable, improvement of one's position under the rules can be empirically ascertained. For the same reasons, all people subject to the distribution rules can be ranked relatively in terms of their possession of measurable advantages if their total accumulations are known; in any event, changes in their relative positions can be known on any receipt of an advantage.

Receipts that are disproportionate to the beneficiary's investment are not always unearned. For instance, it is not a windfall to receive a large insurance payment for a casualty insured against for a small premium. It is not considered a windfall to make a harshly favorable bargain for oneself. Windfall receipts are ordinarily unexpected because they are inconsistent with the distribution rules. If the distribution rule is that there are to be no distributions (e.g., as is the case under the fault rules for suffering injuries from natural disasters and decay) any receipt under those rules is a windfall. Legacies, at least to friends or relatives with whom the donor had contact, would probably not be considered windfalls.\(^\text{120}\) Although often unearned, they need not fall within the class of unexpected events or be inconsistent with the doubt-accommodating distribution rules that we normally assume for inheritances.

In short, to receive a windfall is to get ahead of the rules of the game. An error in the application of the distribution rules is ordinarily not a windfall, for tolerance of at least some error seems usually to be part of our distribution systems. Similarly, distributions not required but permissible under the rules, such as debatable choices that might be decided on principle either way, are not inconsistent with the rules (or are not unexpected) and are not windfalls.

To evaluate a receipt of a measurable advantage against a claim of windfall, one must identify the game that is being played. Occasionally, that decision is difficult, for at least some advantages might seem to be

\(^{119}\) The principal connotations of "result" seem to include the dispositive character of specific outcomes of processes calculated to require some kind of decisive treatment. See HART & HONORÉ, CAUSATION IN THE LAW 25-26 (1959). There is apparently a sense in which the valued results of freedom of action include specific events such as the infliction of injury on another without liability.

\(^{120}\) See WEBSTER'S NEW INTERNATIONAL DICTIONARY 2619-20 (3d ed. 1961), revising WEBSTER'S NEW INTERNATIONAL DICTIONARY 2931 (2d ed. 1934) (semble).
distributed under more than one system of rules. For instance, it need not
be a windfall for all purposes to receive payment for historically suffered
injuries. It seems basic to the way people think that there is always some
point of view from which payment for the measurable disadvantage of
involuntary injury is desirable. Payment for injury historically caused
by natural calamity may be a windfall from the point of view of a system
of compensation in tort, but not if it is received from the victim's insurer,
in which case the insured has invoked different distribution rules. There
is no windfall if even-handed legislation attempts to relieve the hard-
ship, for the distribution rule (the relationship of government to the
citizenry pre-existing the calamity) is thought to permit legislative re-
sponse to demands for such relief.

Some policies could be common to substantially all systems of distri-
bution, however. For instance, it may be that complete relief from one's
earned injuries would be considered a windfall from any point of view.
The ultimate redoubt of fault rules of distribution may well be the notion
that compensation for an injury consented to or bargained for by the
recipient is a windfall.121 Payment for earned injuries may, nevertheless,
not be forbidden. Even in the competitive context of litigation there may
be good reasons justifying payment of windfalls.122

"Getting ahead of the rules of the game" is a concept of competition.
Two aspects of a windfall account for its competitive quality. One is that
a windfall is not simply an improvement of one's position; it is an
improvement inconsistent with the rules. It therefore results in an un-
earned improvement relative to all others who are governed by the
distribution rules. Their positions are ordered consistently with those
rules. The unique competitive quality of a windfall is that to be put
ahead of the rules means to be put ahead of all those who must live by
them. The second aspect of a windfall accounting for its competitive
quality is the quantifiable nature of its subjects. Thinking of a windfall
as a competitive event is greatly facilitated because receipt of a measur-
able advantage is an identifiable event, an improvement in position can
thus be established, the extent of the improvement can be quantified, and
total accumulations under the distribution rules might also be known and
ranked.

If one can get ahead of the rules of the game, he can presumably fall
behind them also. The sense in which one falls behind and which is the

121 Cf. CAL. LABOR CODE § 3600(d)-(g) (quality of employee's involvement in injury
barring workmen's compensation); Ehrenzweig, A Psychoanalysis of Negligence, 47 NW.
122 See, e.g., Mishawaka Rubber & Woolen Mfg. Co. v. S.S. Kress Co., 316 U.S. 203,
207 (1942); Morris, Punitive Damages in Tort Cases, 44 HARV. L. REV. 1173, 1177 n.7
(1931).
converse of the receipt of a windfall requires that the change in position be unearned. One must be "put" behind the rules of the game, a situation that is probably best referred to as an "unjust deprivation." An unjust deprivation is thought to be the unearned and unexpected infliction of measurable disadvantages inconsistent with rules for the collection of advantages. Perhaps the coercive quality of collection rules principally accounts for the use of "unjust" to contrast with "windfall." Typically, there is nothing unjust, or even improper, in accepting a windfall, and the usual evaluative connotation of the concept is closer to "good fortune." What is considered unjust is, by the acceptance of a windfall, to inflict an unjust deprivation. Unjust enrichments are ordinarily thought to occur when the beneficiary gains "at another's expense" and then retains that unearned advantage.

Probably the most important type of situation in which one could inflict an unjust deprivation by the acceptance of a windfall is a lawsuit. Litigation is a special class of competitive situations for several reasons. First, both the distribution rules and the rules for collection of amounts to be distributed are administered coercively in a lawsuit. The two sets of rules are the same. Every gain by one party is an equal loss to the other. The plaintiff and defendant are in competition over a fund potentially equal to the cost of the injury suffered. Compensation to plaintiff is obviously at defendant's expense; conversely, it would be common to think of defendant's nonliability as an improvement of his position (in terms of freedom of action or freedom from a potential money obligation) at plaintiff's expense (in terms of the measurable disadvantage of the injury).

That measurable advantages and disadvantages may be thought of in terms of the parties' historical behavior suggests a second distinguishing feature of litigation as a class of competition. The distribution and collection rules concern two levels of competitive activity: the parties' historical behavior in competition for freedom of movement that brought about the injury, and the parties' competition in the lawsuit. The rules of distribution and collection must include rules designed to regulate behavior, rules of an adjectival sort designed to regulate and decide lawsuits, and rules concerning sanctions designed to harmonize substantively the outcomes of lawsuits with the rules regulating behavior.

---

123 See, e.g., Roget's International Thesaurus § 809.6 (3d ed. 1962).
124 There seems to be no standard, widely current term for the converse of a windfall. One explanation may be that the competitive situations in which acceptance of a windfall inflicts an unjust deprivation are only a minority of the situations in which windfalls occur. Perhaps "windfall" is in fact used to refer to a given unjust deprivation.
125 Cf. Morris, supra note 122, at 1177 n. 7 (justification for punitive damages).
126 Competitive causal policies, including that of avoiding windfalls at defendant's expense, often function as rules governing sanctions. See Part I, at 478.
A third distinguishing feature of litigation as a class of competitions reflects its characteristic simultaneous infliction of measurable disadvantages (e.g., liability) to finance a distribution (e.g., recovery). This intensive legal competition between the historical competitors is not the only set of competitions affected by the lawsuit. It must also be remembered that the distribution and collection rules apply to all people who are governed by them, not just the immediate litigating parties. For example, if the plaintiff gets ahead of the rules of the game, he receives an unearned competitive advantage (i.e., the receipt of money) over the entire class of people subject to the distribution rules as well as over the defendant. Moreover, and more important, if the defendant simultaneously receives an unjust deprivation, it is inflicted not only in competition with the plaintiff, but also in competition with the entire class of those subject to the collection rules.

The classes of people subject to the distribution or collection rules applied in a lawsuit are thought to be broad. For instance, the distribution rules applied in a lawsuit probably include as the plaintiff's competitors everyone who may potentially suffer unintended injury, and they at least include all those who might be injured in similar cases. The collection rules would include every potential source of the plaintiff's injury or compensation and in fact appear to include at least all those who might be involved in similar injuries. In a system of distribution and collection rules administered by government, the respective classes with which the parties are thought to compete appear to include everyone potentially governed by the law applied regardless of their noninvolvement in the particular suit.

This third distinguishing feature of litigation as a class of competitions—the multiplicity of competitive relationships affected by a lawsuit—helps account for the felt notion that the claims of either party can be stated “objectively” (i.e., to some degree independently of the claim of the other party). If the law pays a windfall or inflicts an unjust deprivation between the parties, it thereby also works a windfall or unjust deprivation in the affected party's competitive relationships to the third persons governed by the same distribution or collection rules. Sometimes, to prefer the “innocent plaintiff” over the “guilty defendant” may inflict a deprivation on the defendant which seems justifiable with respect to

127 Usually, the same collection rules govern both the defendant and the plaintiff's property or fire insurer. Such insurers are subrogated to the plaintiff. Accordingly, in view of his competition with the insurer, the defendant may set off the insurance proceeds against his liability to the plaintiff. See Note, Unreason in the Law of Damages: The C

128 See section II, A, 2, “The Objective Quality of the Parties' Claims,” supra in this part.
the plaintiff alone but which is an unjust deprivation in defendant's competition with third persons. With respect to them, he may not be "guilty" and may not have earned a detrimental change in position.

The multiplicity of the competitive relationships affected by a lawsuit is still more complex. The competitive relationships affected may be the parties' relationships to third persons under distribution or collection rules different from those applied in the lawsuit. This additional dimension of competitions helps account for some problems of distributive fairness that are difficult to resolve. The difficulties arise because we often are unclear which sets of competitive relationships are involved in the receipt of a given advantage or because the effects of a distribution in one competitive setting are unavoidably felt in another competition and are inconsistent with the distribution rules applicable there.

For example, suppose student $A$ is given a research assistantship in preference to student $B$, who seems better qualified for it. $B$ takes a nonacademic job instead. Suppose it later turns out that $A$ is entitled to an income tax refund because the assistantship is a nontaxable fellowship. $A$ decides not to accept the refund; he views it as a windfall that will put him too far ahead of $B$, whose nonacademic income is taxable. $A$'s theory is that his undue competitive advantage in getting the assistantship is neutralized by rejecting the extra economic advantage it afforded. What he has tried to do is to avoid a windfall under the assistantship distribution rules by accepting a quantitative disadvantage under the tax competition rules. No complete solution seems available to him, and he has apparently given the taxing authority a windfall under the latter rules.

The extent to which one regards $A$ with amusement or respect reflects one's judgment as to whether $A$ has confused the competitions under two substantially unrelated sets of distribution rules or has sensed the tensions resulting from the unavoidable conflicts in our multiple competitive relationships. How one decides under what set of distribution rules an advantage is received, what classes are governed by the rules and hence are in competition for such an advantage, and whether other sets of competitions are significantly affected by the receipt are difficult questions of judgment. The operational characteristics of such judgments and many of the policies ingredient in making them will often resemble what is characteristic of any decision concerning whether to sanction wrongdoing with liability for a particular injury.\[^{129} \]

In negligence suits the question often clearly takes that form. This is true, for instance, of cases involving the "collateral source rule," in which defendant seeks to reduce the extent of his liability by reference to gifts or to insurance, pension, or tax benefits

\[^{129} \text{See, e.g., Part I, at 498-506.}\]
paid the plaintiff by third persons in recognition of his injuries and regardless of his recovery from defendant.\footnote{The situations in which defendants make such claims and the principal arguments ingredient in adjudging them are analyzed in Note, supra note 127. Occasionally, the form of the claim that a party's external competitive relationships are relevant to the competition in the lawsuit is that of a claim of denial of equal protection. See Bargain City U.S.A., Inc. v. Dilworth, The Philadelphia Legal Intelligencer, June 22, 1960, p. 1, col. 1 (Phila. Ct. C.P. 1960), quoted in Paulsen & Kadish, Criminal Law and Its Processes 977 (1962) (selective enforcement of criminal statute pursuant to calculated policy violates 14th amendment but random selective enforcement would not).}

What gives rise to a windfall or unjust deprivation is an identifiable misallocation of advantages or disadvantages which can be quantified. The means for avoiding windfalls and unjust deprivations ordinarily are therefore thought to be relatively apparent: A quantitative adjustment in the size of the distribution or collection should be made at the time of the otherwise objectionable event. Windfalls present acute problems of distributive justice when no quantitative solution relevant to the distribution rules is available. When only one set of distribution rules is involved, as in most negligence suits between two parties, windfalls at defendant's expense can be avoided by striking an appropriate bargain between the parties in terms of the money damages. A windfall at defendant's expense may not be avoidable if the bargain cannot be calculated. This is the problem in the darting-out cases. If the necessary-condition argument might be persuasive but cannot be validated in terms of odds, the relevant quantitative criterion for striking the bargain is unavailable.\footnote{Cf. Ehrenzweig, "Full Aid" Insurance for the Traffic Victim 18 (1954) (difficulty in determining insurance premium which defendant might bear instead of full cost of injury); Note, supra note 127, at 752 (difficulty of calculating collateral tax benefits to plaintiff). In some lawsuits, the interests of third persons may be thought relevant, perhaps under additional sets of distribution rules. The failure of a quantitative solution may lie, not in the inability to calculate an appropriate bargain, but in the inability to execute it against the interests of absent third persons. Practical judicial inventiveness, through such means as intervention, extension of process to third persons, impression of trusts for their benefit, and so on, might permit resolution of such windfall arguments.}

C. Summary: Avoiding Windfalls as the Legal Purpose of Necessary-Condition Arguments in Darting-Out Cases

A competitive causal policy that windfalls at defendant's expense should be avoided is widely shared. In the law of equity and restitution, the argument seems relatively clearly recognized and credited, and remedies for avoiding windfalls seem to have been relatively expressly devised. In negligence law, the windfall argument operates as a reason relevant to the function of deciding whether and to what extent to sanction negligence with liability for the plaintiff's injury. However, the
argument here does not appear to be recognized explicitly or decided in responsive terms. The policy against unjust deprivation is a policy toward the use of liability as a sanction. It is designed to regulate the outcome of litigation in a manner consistent with the rules regulating the behavior historically involved in the injury. The argument is calculated to achieve this by adjusting the amount of the sanction, the money damages, to reflect the historical uncertainties in the parties' behavior. In the darting-out cases, those uncertainties involve the question whether the defendant's driving at a speed other than his historical speed would have made a difference to the plaintiff. Uncertainty as to the avoidability of the injury also involves the quality of the plaintiff's conduct in darting into the defendant's path.

A windfall would occur if the plaintiff's recovery for his injury exceeds what he is "objectively" entitled to under the rules of behavior, sanction, and procedure applied in the litigation. What he is objectively entitled to is a function of the windfall concept. It reflects the fact that the outcome of his competition with the defendant also affects his competitive position with respect to the class of all others governed by the rules applied in the litigation. Presumably, that class includes at least those whose participation in their own personal injury is similar to that of the plaintiff. Similarly, it would be an unjust deprivation to the defendant, in his competitions with the plaintiff and with the class of those governed by the same rules, if he is liable in factual circumstances in which a non-negligent, nonspeeding driver would not be liable. In short, a windfall and an unjust deprivation will occur to the extent that the plaintiff can require the defendant to pay the cost of his injury in circumstances not materially different from those cases in which recovery is denied under the rules.

The means used in darting-out cases to determine the extent to which recovery would be inconsistent with the rules is a necessary-condition argument. To the extent the defendant's driving at his historical speed was not a necessary condition of the injury, the case resembles those in which driving at some other (nonnegligent) speeds was a sufficient condition of injuries, and in which there is no recovery under the rules. The necessary-condition argument operates to adjust the parties' competing and unequal deserts because it is validated as a matter of degree. To the degree the necessary-condition argument is shown, the case resembles one in which there is no liability under the rules and the money recovery can be reduced. A case lying somewhere between one in which recovery of the full cost of the injury is consistent with the rules and one

\[132\] See section I, A, "Primary Content of 'Cause' as 'Necessary Condition,'" supra in this part.
in which there is no recovery is a case in which there is recovery for part of the cost of the injury.

Necessary-condition arguments are validated as a matter of degree in the sense that they are validated in operations akin to those for validating statements of historical particulars. Such statements are validated in terms of the probabilities or the odds in favor of particularized counterfactual propositions detailing how the injury would have happened at some nonnegligent speed. These odds provide the quantitative criterion of the degree of resemblance of the case in litigation to those in which it is clearly known whether recovery is consistent with the rules. The odds provide the quantitative criterion by which damages can be reduced and which therefore serves to harmonize the parties' competing objective claims with each other and with their other competitors under the rules.

It remains a matter of judgment, of course, whether the windfall competitive causal policy is persuasive as against other policy arguments for sanctioning the wrongdoing with the full cost of the particular injury or for not sanctioning it at all. Even if the policy is thought persuasive, a matter of judgment remains as to when the difference in odds between cases when there is either no recovery or full recovery and the instant case is too small to be taken into account.

Difficulty in the darting-out cases arises because the necessary-condition argument in such cases ordinarily cannot be validated on operations similar to those for validating statements of historical particulars. The operations by which one selects the relevant counterfactual propositions to which the necessary-condition argument must be reduced are dependent on specific policies of negligence law. Hence, validation of the necessary-condition argument differs from validation of matters of fact, which are relatively independent of such substantive policies. Similarly, any counterfactual proposition selected is relatively unsusceptible to validation in terms of the verification or observation characteristic of the operations for validating statements of fact. To render the argument susceptible to validation in such terms, by generalizing it, entails reliance on choices of legal policy that again operationally distinguish it from statements of historical particulars.\textsuperscript{133}

The courts have disregarded both our inability to validate necessary-condition arguments as matters of historical fact and the policy choices that would permit rational validation in some other terms. The courts' oversight, and the consequent nonreasoned, perhaps intuitive, treatment of necessary-condition arguments, have doubtless been engendered in

\textsuperscript{133} Moreover, the risk of inability to validate necessary-condition arguments cannot be disposed of by a simple assignment of the burden of persuasion, for that also depends on substantive legal policy. See note 82 supra.
part by judicial reliance on causal language. To say that the argument is one of "cause in fact" is calculated, given the usual effects of such language, to distract analysis from ingredient matters of policy or even of probabilities and to suggest that a simple yes-or-no finding is appropriate. The irony is that the language of "cause" and "fact" is in a sense also quite apt in darting-out cases. The courts' use of "cause" indicates an awareness at some level that the argument is about necessary conditions and, hence, windfalls. The use of "fact" may suggest an awareness at some level that what is needed to avoid a windfall is a relevant estimate of probabilities. The language of "cause in fact" thus provides a useful clue to the content of the argument at stake and helps confirm that the courts have tried to deal with it. Although that language may help lead us to the problem, yet unreflecting reliance on "cause" and "fact" submerges any reasoned solution of the problem.

A reasoned solution of a windfall problem may take several forms. In view of the inability to resolve it by validating necessary-condition arguments in terms of odds, one may choose to decide the darting-out cases regardless of the argument.\(^{134}\) Even if the argument could be validated, one might find it unpersuasive in view of other arguments bearing on whether to sanction speeding with liability for a darting-out injury. On the other hand, if the argument does seem persuasive, one must analyze the substantive policies of negligence law to decide their bearing on the process of validating necessary-condition arguments or on other aspects of the windfall argument. Such policies may indicate the appropriate choices to be made in validating contrafactual propositions. They may indicate other means of deciding whether to sanction speeding with liability that are consistent with the competitive causal policy against windfalls. On the assumption that the windfall argument is generally accorded merit, this Article attempts now to analyze the bearing of substantive policies of negligence law in deciding the argument.

To be concluded

\(^{134}\) If the necessary-condition argument cannot be validated in terms of odds after the fashion of a statement of an historical particular, it does not follow that a per capita sharing of the cost is preferable to an all-or-nothing assignment of it as a means of avoiding a windfall at defendant's expense. But cf. Coons, supra note 103. The policy against windfalls at defendant's expense looks toward a quantitative criterion for sharing that is specifically tailored to meet the uncertainties of the particular fact situation, which may vary greatly from a 50-50 division of the cost of the injury. It may be more consistent with the policy against windfalls to assign the entire cost of the injury to one party, or to attempt to set abstract odds on a statement that does not significantly operationally resemble statements of historical particulars. See text accompanying notes 65-66 supra.