

MICHAEL MURRAY

## The Law of Describing Accidents: A New Proposal for Determining the Number of Occurrences in Insurance

**ABSTRACT.** This Note argues that the term “occurrence” in insurance law should be defined by reference to the statistical concept of independence. Most courts define occurrence according to a version of the “causation” theory. This approach, however, yields inconsistent results for strikingly similar fact patterns and routinely strains theories of proximate causation. The concept of independence provides a better approach because it is consistent with the insurance system’s assumption that adverse outcomes are independent. It also provides a clearer standard for adjudicators and better explains why decisions that seem confused under current doctrine are, in fact, correct for the insurance system.

**AUTHOR.** Yale Law School, J.D. expected 2009; Princeton University, A.B. 2006. I would like to thank several individuals for their assistance in the development of this Note. First, Professor George Priest provided crucial commentary on early outlines and drafts of the paper. Second, Professor Kenneth Abraham and Michael Tebbs provided thoughtful commentary on full drafts. Third, Nicolas Thompson provided superb substantive and procedural editing assistance. Finally, I would like to thank Claire McCusker and my family for exhibiting the virtue of patience during the writing and revising process.



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**INTRODUCTION**

The financial ability to rebuild the World Trade Center depended in part on whether the events in New York City on September 11, 2001 should be described as one event or two.<sup>1</sup> If the attack on September 11 ought to be described as one event, the owners of the World Trade Center (WTC) were entitled to recover approximately \$3.5 billion, not nearly enough to rebuild.<sup>2</sup> If the attack should be described as two events, the owners were entitled to recover over \$7 billion, an amount closer to that needed to rebuild.<sup>3</sup>

The precise description of the events of September 11 matters because the insurance policies covering the WTC provided recovery on a “per-occurrence” basis with a cap of \$3.5 billion for each occurrence.<sup>4</sup> The definition of “occurrence” and whether the attack constituted one or two occurrences so defined was critical, therefore, to the amount of recovery. Unsurprisingly, lengthy litigation over the term ensued.<sup>5</sup> The dispute was complicated by the fact that the parties had not completed a final insurance contract by September 11 and various drafts and relevant documents had, at least according to the litigants, contradictory implications.<sup>6</sup> In the end, a jury found that a majority of the insurers of the property were bound to a form that treated what happened on September 11 as one occurrence, while a minority of insurers were

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1. See generally Kirk A. Paisch, *An Analysis of the World Trade Center ‘Two Occurrences’ Decision*, INS. COVERAGE L. BULL. Feb. 2005, 1, 1 (discussing how the court’s ruling could result in over \$1 billion dollars more coverage to rebuild).
  2. *World Trade Ctr. Props., L.L.C. v. Hartford Fire Ins. Co.*, 345 F.3d 154, 158 (2d Cir. 2003).
  3. *Id.*
  4. *Id.*
  5. *Id.* at 158–60 (discussing the course of the litigation).
  6. *World Trade Ctr. Props. LLC v. Travelers Indem. Co.*, No. 1 Civ. 12738, 2002 U.S. Dist. LEXIS 9863, at \*6 (S.D.N.Y. June 5, 2002). It is not obvious that the definition on the contractual form of the parties and the default definition under New York law should yield different results because both claim to rely on a causation approach. New York’s long-established use of the “unfortunate events” test, see *Hartford Accident & Indem. Co. v. Wesolowski*, 305 N.E.2d 907, 910 (N.Y. 1973), however, is in actuality a variation within a general causation approach based on the “liability event” and thus probably yields a different result. See *In re Prudential Lines, Inc.*, 202 B.R. 13, 22 (Bankr. S.D.N.Y. 1996) (recognizing “the long line of cases applying the New York law’s presumption that the ‘occurrence’ in an insurance context is the underlying event that ultimately results in a filed claim or claims”); Jon A. Baumunk, Comment, *New York’s “Unfortunate Event” Test: Its Application Prior to the Events of 9/11*, 39 CAL. W. L. REV. 323 (2003).

bound to a different definition that treated what happened on September 11 as two occurrences.<sup>7</sup>

Conflicts over the number of occurrences in an insured event are not limited to terrorist acts or similarly unique situations. On the contrary, disputes over the term occur in a wide variety of contexts, including products liability,<sup>8</sup> environmental damage,<sup>9</sup> employment discrimination,<sup>10</sup> automobile accidents,<sup>11</sup> arson,<sup>12</sup> gunshots,<sup>13</sup> food poisoning,<sup>14</sup> police brutality,<sup>15</sup> and transportation of goods.<sup>16</sup> The issue can arise any time an insured asset is involved with multiple injuries to persons or property.

Academic discussion of the approaches to determining the number of occurrences is sparse. Only a few scholarly works have catalogued the prevalent doctrines in the case law.<sup>17</sup> While several commentaries on the September 11

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7. SR Int'l Bus. Ins. Co. v. World Trade Ctr. Props., LLC, 467 F.3d 107, 113-15 (2d Cir. 2006) (recounting the history of the litigation and the jury verdict); Paisch, *supra* note 1, at 1. In particular, the courts found that the "WilProp" contract defined the attacks as one occurrence while the default principle of background law defined the attacks as two occurrences. Consequently, the minority of insurers bound by the "WilProp" form paid the one-occurrence amount while the insurers not so bound paid the amount for two occurrences. *World Trade Ctr.*, 467 F.3d at 115-16.
  8. *E.g.*, *Champion Int'l. Corp. v. Cont'l Cas. Co.*, 546 F.2d 502 (2d Cir. 1976) (defective paneling); *Associated Indem. Corp. v. Dow Chem. Co.*, 814 F. Supp. 613 (E.D. Mich. 1993) (defective pipe).
  9. *E.g.*, *Sunoco, Inc. v. Ill. Nat'l Ins. Co.*, 226 F. App'x 104 (3d Cir. 2007).
  10. *E.g.*, *Appalachian Ins. Co. v. Liberty Mut. Ins. Co.*, 676 F.2d 56 (3d Cir. 1982) (sex discrimination); *Transp. Ins. Co. v. Lee Way Motor Freight, Inc.*, 487 F. Supp. 1325 (N.D. Tex. 1980) (race discrimination).
  11. *E.g.*, *Ill. Nat'l Ins. Co. v. Szczepkowicz*, 542 N.E.2d 90 (Ill. App. Ct. 1989) (multiple car accidents).
  12. *E.g.*, *Lexington Ins. Co. v. Travelers Indem. Co. of Ill.*, 21 F. App'x 585 (9th Cir. 2001) (four fires set by an arsonist).
  13. *E.g.*, *Koikos v. Travelers Ins. Co.*, 849 So. 2d 263 (Fla. 2003) (multiple gunshots).
  14. *E.g.*, *Mason v. Home Ins. Co. of Ill.*, 532 N.E.2d 526 (Ill. App. Ct. 1988) (ill-prepared onions).
  15. *E.g.*, *Mead Reinsurance v. Granite State Ins. Co.*, 873 F.2d 1185 (9th Cir. 1988) (excessive force).
  16. *E.g.*, *Mich. Chem. Corp. v. Am. Home Assurance Co.*, 728 F.2d 374 (6th Cir. 1984) (misshipment).
  17. The most thorough analysis is provided in Tung Yin, Comment, *Nailing Jello to a Wall: A Uniform Approach for Adjudicating Insurance Coverage Disputes in Products Liability Cases with Delayed Manifestation Injuries and Damages*, 83 CAL. L. REV. 1243 (1995), which distinguishes and describes four theories and arguing for causation theory. See ROBERT H. JERRY, II, UNDERSTANDING INSURANCE LAW 335-37 (1987); Arthur J. Liederman, *Appendix: Application of Occurrence/Accident to an Insurer's Limit of Liability and Deductible*, in THE COMPREHENSIVE

litigation appeared in both popular publications and academic journals, none of these deeply analyzed the multiple occurrence doctrine.<sup>18</sup> No article has subjected the prominent doctrines to focused theoretical critique and analysis.<sup>19</sup> This omission is striking because of the importance leading treatises and casebooks attribute to the issue.<sup>20</sup>

This Note seeks to fill this gap in the literature. It makes three novel contributions. First, the Note seeks to clarify confusion over how to catalogue the current doctrines employed by courts<sup>21</sup> with a typology and a hypothetical example that highlights the differences among the theories. Second, it criticizes the ascendant causation theory on both transsubstantive and normative grounds. The Note therefore avoids two of the defects of existing criticism of the causation theory. Existing scholarship has primarily focused on particular cases and, as a result, has only criticized the specific application of the causation theory to a set of facts.<sup>22</sup> This Note's critique, however, compares and contrasts

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GENERAL LIABILITY POLICY: A CRITIQUE OF SELECTED PROVISIONS 113 (Arthur J. Liederman ed., 1985); Francis J. Maloney III, *The Application of "Per-Occurrence" Deductible Provisions in First-Party Property Claims*, 37 TORT & INS. L.J. 921 (2002) (distinguishing and describing three different occurrence theories); Sharon Abidor, Note, *Traveling Outside the Insurance Contract; The Problems with Maximizing Victim Compensation: Koikos v. Travelers Insurance Company*, 10 CONN. INS. L.J. 349 (2004) (distinguishing and describing two different occurrence theories and critiquing the application of the causation theory).

18. E.g., Desmond Keith Derrington, *Occurrences: The World Trade Center Insurance Question*, 13 IND. INT'L & COMP. L. REV. 831 (2003) (providing an international perspective on the occurrence question); Jeffrey W. Stempel, *The Insurance Aftermath of September 11: Myriad Claims, Multiple Lines, Arguments over Occurrence Counting, War Risk Exclusions, the Future of Terrorism Coverage, and New Issues of Government Role*, 37 TORT & INS. L.J. 817, 844-45 (2002); Paisch, *supra* note 1; Baumunk, *supra* note 6.
19. The most prominent piece is representative: focusing on delayed manifestation injuries, it catalogues the four different theories used by courts and accepts with only limited argument the increasing trend toward use of the causation theory. See Yin, *supra* note 17.
20. See KENNETH S. ABRAHAM, *INSURANCE LAW AND REGULATION* 436-44 (3d ed. 2000) (devoting a section to the number of occurrences issue); TOM BAKER, *INSURANCE LAW AND POLICY* 2-3 (2003) (mentioning the occurrence issue as a means to discuss the interpretation of insurance contracts); MALCOLM A. CLARKE, *THE LAW OF INSURANCE CONTRACTS* § 17-4C3, at 488-95 (5th ed. 2006) (devoting a section to the number of occurrences issue in British law); *INSURANCE DISPUTES* § 4.160, at 104-05 (Lord Justice Mance, Iain Goldrein & Robert Merkin eds., 2d ed. 2003) (devoting one paragraph to the number of occurrences issue in British law); BARRY R. OSTRAGER & THOMAS R. NEWMAN, *HANDBOOK ON INSURANCE COVERAGE DISPUTES* (14th ed. 2008) (devoting a section to the number of occurrences issue).
21. See Maloney, *supra*, note 17 (distinguishing three theories); Abidor, *supra* note 17 (distinguishing two theories); Yin, *supra* note 17 (distinguishing four theories).
22. E.g., Maloney, *supra* note 17 (property claims); Stempel, *supra* note 18 (terrorism); Abidor, *supra* note 17 (negligence).

outcomes in a wide-ranging series of cases to make a larger point regarding the impossibility of consistent adjudication in insurance disputes under the causation theory. Previous critiques also have not relied on the familiar concept of proximate causation and its connections both to normative responsibility and understandings of human decisionmaking to ground their analysis.

The final and primary contribution of this Note is an independence-based proposal for the definition of occurrence. No scholar has advanced such a proposal: all other scholarship argues in favor of a particular variation of the causation theory<sup>23</sup> or for an outcome under a particular variation.<sup>24</sup> The Note argues for an independence approach on the basis of normative analysis of the economics of the insurance system and of appeals to judicial economy. Specifically, the independence approach better comports with the intent of the parties. It also provides an objective criterion that reduces the inconsistent outcomes and the opportunities for outcome-based judging plaguing the causation approach. This economics-based argument contrasts strongly with the existing scholarly defenses of the causation theory, which focus largely on outcome, such as privileging victims or addressing a certain type of injury.<sup>25</sup> The Note, therefore, is also original in extending economic analysis—common in insurance law<sup>26</sup>—to the occurrence issue.

A brief comment on the property versus liability insurance distinction is important before proceeding. Despite the reference to property insurance regarding the WTC case, this Note generally focuses on liability, and not property, insurance. The same arguments apply, however, to property insurance, albeit in somewhat different terms. To be sure, some commentators distinguish between property and liability insurance when analyzing occurrence theories. They reason that payouts for liability insurance are unlimited and compensate unsuspecting tort victims whereas payouts for property insurance are limited to land value and compensate individuals choosing to own and insure property.<sup>27</sup> This reasoning, however, is flawed on a

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23. *E.g.*, Yin, *supra* note 17 (arguing for the proximate cause variation).

24. *E.g.*, Abidor, *supra* note 17 (arguing that the court improperly applied the proximate cause variation); *see, e.g.*, sources cited *supra* note 22.

25. *See* sources cited *supra* note 17.

26. *See, e.g.*, BAKER, *supra* note 20 (discussing economic incentives throughout the portrayal of insurance law).

27. *See* Abidor, *supra* note 17, at 350 n.4. (“First, unlike a property insurance risk, there is no natural limit on a liability insurance risk. . . . Second, unlike property insurance benefits, liability insurance benefits go to victims who had no choice over the amount or kind of insurance purchased by the person or entity that harmed them.” (internal quotation marks omitted)).

number of grounds. First, it is countertextual: the contracts in both areas are often similar, if not identical.<sup>28</sup> Since insurance is a contract-based field, and textual intentions matter in contract interpretation,<sup>29</sup> this similarity matters. Second, the assumptions of insurance—such as independence of insured events and information availability—are the same in both types of cases. In other words, there is no reason to think that different background principles underlie the different insurance systems. Third, while liability insurance addresses unlimited losses, the ability to calculate average losses and a loss distribution is more important for the operation of insurance: unpredictable and large losses can be insured as long as their distribution is known. There is no reason, consequently, to think that a different occurrence conception is needed to address this difference. In any event, the rise of aggregate caps in liability insurance renders this difference moot. Finally, the distinction presumes that insurance contract interpretation should care about distributional justice at the expense of consistency and efficiency because it privileges tort victims—who cannot purchase insurance—by maximizing their recovery. But contractual interpretation traditionally relies on the intent of the specific parties, not universal utilitarian concerns better addressed by mandatory insurance requirements, as for automobile insurance or social safety net policy. Consequently, this Note rejects such a distinction between property and liability insurance for the limited purpose of interpreting the occurrence concept. Courts, however, appear divided on this point.<sup>30</sup>

The Note proceeds in four Parts. Part I provides a brief overview of insurance and the concepts relevant for later analysis. Part II describes the two theories of occurrence prevalent in the case law, focusing on the ascendant causation theory and its two variations. Part III critiques these theories from

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28. Compare *Newmont Mines Ltd. v. Hanover Ins. Co.*, 784 F.2d 127, 135 (2d Cir. 1986) (interpreting a property policy reading that the insurer “shall not be liable for more than its proportion of \$1,000,000 excess of loss of \$500,000 for any one occurrence in addition to the deductible under the primary insurance [\$25,000] . . . by any of the perils insured hereunder”), and JEFFREY M. STEMPEL, STEMPEL ON INSURANCE CONTRACTS § 15.03(F), at 15-60.1 (2009) (summarizing the Insurance Services Office (ISO) standard property form language and stating that “the most we will pay for loss or damage in any one occurrence”), with INS. SERVS. OFFICE, INC., COMMERCIAL GENERAL LIABILITY COVERAGE FORM (CG 00 01 07 98), at 4 [hereinafter CGL COVERAGE FORM], reprinted in BAKER, *supra* note 20, at 413, 416 (setting forth the general occurrence requirement).

29. See RESTATEMENT (SECOND) OF CONTRACTS §§ 201-203 (1981).

30. Compare *Royal Indem. Co. v. Kaiser Aluminum & Chem. Corp.*, 516 F.2d 1067 (9th Cir. 1975) (relying on a liability insurance causation test in a property insurance context), with *Newmont Mines Ltd. v. Hanover Ins. Co.*, 784 F.2d 127 (2d Cir. 1986) (distinguishing between property and liability insurance).

both external and internal perspectives, arguing that the variations are internally incoherent, that courts choose between the variations without principle, and that courts apply the variations inconsistently. Part IV proposes a different theory for the definition of occurrence based on the concept of independence. It details the types of inquiries required by an independence test, discusses the sources of the data necessary for such inquiries, and addresses counterarguments to an independence test. The final Part provides examples of independence analysis and describes the clarifying impact of an independence test on current doctrine and cases.

## I. THE INSURANCE SYSTEM

Insurance is widespread in the modern world and has existed in some form since ancient times.<sup>31</sup> While the modern insurance system is technical and complex, its basic functioning is consistent and its terms are often standardized.<sup>32</sup> This Part will briefly describe how insurance works and define several relevant concepts.

### A. Brief Overview of Background Concepts

Insurance increases societal welfare because of the phenomenon of risk aversion.<sup>33</sup> Demand for insurance arises because individuals are risk averse with regard to losses: they prefer a certain loss to the risk of a greater loss even when the average loss is the same for both.<sup>34</sup> Individuals, therefore, routinely pay insurance premiums that are equal to or less than the average loss plus their risk premium to avoid the chance, however small, of disastrous loss.

In order to capitalize on risk aversion, insurance systems rely on the “law of large numbers.”<sup>35</sup> The law of large numbers provides that the actual loss of the members of a group becomes more predictable as the number of individuals in the group increases.<sup>36</sup> In more technical terms, the probability density function decreases as the number of observations increases. This increased predictability

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31. JERRY, *supra* note 17, at 16-18 (summarizing the history of insurance).

32. BAKER, *supra* note 20, at 410 (stating that two forms of “these [standardized] liability insurance policies provide the basic non-automobile tort liability insurance coverage for most people and businesses in the United States”).

33. BAKER, *supra* note 20, at 2-3.

34. *Id.*

35. *Id.* at 3.

36. *Id.*

allows an insurance company that provides insurance for many individuals in its risk pool to predict with relative certainty the actual loss of its insured individuals. The company, therefore, can know what amount of reserves it needs to make the payouts and, consequently, what amount it must charge in premiums.<sup>37</sup> As described above, risk-averse individuals prefer these premiums to the equivalent gamble.

The operation of the law of large numbers in the insurance context assumes that adverse outcomes are independent, or uncorrelated.<sup>38</sup> In other words, the insurance system assumes that the probability that one individual suffers an adverse outcome is not affected in any way by the outcome of another individual.<sup>39</sup> This assumption explains the traditional war exclusion from insurance coverage: losses in war are highly correlated.<sup>40</sup>

### B. *The Occurrence Concept*

Modern insurance contracts are largely standardized due to the work of the Insurance Services Office, Inc., an industry group.<sup>41</sup> The Commercial General Liability (CGL) policy is the basic statement of terms for commercial entities.<sup>42</sup> Nearly identical provisions appear in many homeowners' policies.<sup>43</sup> While

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37. Of course, insurance regulators also specify minimum reserves. *E.g.*, N.Y. INS. LAW § 1305 (McKinney 2008) ("Every authorized insurer shall . . . maintain reserves equal to the unearned portions of the gross premiums charged on unexpired or unexpired risks and policies.").
  38. MICHAEL G. FAURE & TON HARTLIEF, 5 INSURANCE AND EXPANDING SYSTEMIC RISKS 109 (2003) ("[T]he requirement that the risks in the pool should be uncorrelated, is equally important. This simply has to do with a basic insurance requirement that the realization of one risk may not at the same time cause the realization of other insured risks as well."); DAVID S. MOORE & GEORGE P. MCCABE, INTRODUCTION TO THE PRACTICE OF STATISTICS 321-23 (4th ed. 2003) (recounting the other assumptions: the availability of accurate information to the insurer and the continuation of past patterns).
  39. MOORE & MCCABE, *supra* note 38, at 295 (discussing the joint probability of independent events).
  40. Stempel, *supra* note 18, at 844-45 (noting that war losses are highly correlated); CGL COVERAGE FORM, *supra* note 28 (modern war exclusion).
  41. The ISO supplies data and support services as well. *See generally* ISO, <http://www.iso.com> (last visited May 4, 2009).
  42. INS. SERVS. OFFICE, INC., COMMERCIAL GENERAL LIABILITY DECLARATIONS (CG 00 90 01 95) *reprinted in* BAKER, *supra* note 20, at 411; CGL COVERAGE FORM, *supra* note 28, *reprinted in* BAKER, *supra* note 20.
  43. ABRAHAM, *supra* note 20, at 167 (reprinting a sample homeowner's policy).

variations exist, focusing on the standard text is useful for the majority of cases.<sup>44</sup>

Since approximately 1980, insurance has been provided largely on a “per-occurrence,” as opposed to a “per-claim,” basis.<sup>45</sup> Per-claim insurance provides recovery up to the policy limit for every claim filed against the insured. Per-occurrence coverage, on the other hand, provides recovery up to the policy limit for every occurrence, regardless of the number of claims filed against the insured. This difference matters when there are numerous claims for two reasons. First, recovery under a per-occurrence policy may not cover the total value of all the claims if all of the claims arise from only one occurrence. As a result, either the insured will have to pay out-of-pocket the difference between the total value of the claims and the occurrence limit, or, if the insured lacks the resources to pay these claims, claims holders will go uncompensated. Second, the insured will have to pay out-of-pocket multiple deductibles if the multiple claims arise out of multiple occurrences. Thus, if each claim is less than the deductible and each claim arose from a separate occurrence, the insured’s policy will not cover any of the losses.

It follows from this analysis that the finding of one or multiple occurrences is neither universally pro-insured nor pro-insurer. The interests of the parties depend on the interaction of a number of variables, including the deductible amount, the value of each claim, the per-occurrence limit, and the value of the sum of the claims.<sup>46</sup> Some generalizations, however, can be made. For example, insurers prefer a finding of multiple occurrences when there are multiple claims each of which is less than the deductible, while insured individuals prefer a finding of one occurrence in the same situation. When each claim is greater than the deductible, the preferences will vary depending on the difference between the claims and deductibles, the sum of the losses, and the occurrence limit. The following Table summarizes the decisions. In practice, insurers and insured parties often take inconsistent positions in different cases because of the change in their interest in the pending litigation.<sup>47</sup>

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44. Yin, *supra* note 17, at 1247 n.24.

45. See JERRY, *supra* note 17, at 333-35.

46. Aggregate limits also often matter. An aggregate limit can cap coverage if the per-occurrence value is particularly high. This discussion assumes no aggregate limit for the sake of simplicity. Aggregate limits are increasingly common, but they are not universal. See World Trade Ctr. Props., L.L.C. v. Hartford Fire Ins. Co., 345 F.3d 154 (2d Cir. 2003).

47. See Stempel, *supra* note 18, at 835 (noting that policyholders do not have a universal interest regarding the number of occurrences).

Table 1

**THE PARTIES' INTERESTS IN NUMBER OF OCCURRENCES<sup>48</sup>**

	<b>ALL CLAIMS (C) ARE LESS THAN THE DEDUCTIBLE (D)</b>	<b>ALL CLAIMS (C) ARE GREATER THAN THE DEDUCTIBLE (D)</b>
<b>TOTAL LOSS (<math>\sum C</math>) EXCEEDS PER-OCCURRENCE LIMIT (L): INSURER WANTS MULTIPLE OCCURRENCES IF <math>\sum(C-D) &lt; L-D</math></b>	Insurer always wants multiple occurrences because $(C-D)$ is less than zero by definition while $(L-D)$ is greater than zero by definition. He pays nothing with multiple occurrences.	Depends on loss ( $\sum C$ ), number of claims ( $n$ ), $D$ , and $C$ . For example, if $L=100$ , $D=10$ , $C=20$ , $n=25$ , and $\sum C=500$ , then insurer wants one occurrence because $\sum(C-D)=250$ , which is greater than $100-10=90$ . Note, for example, that if $L$ were greater than 260, then the insurer would want multiple occurrences.
<b>TOTAL LOSS (<math>\sum C</math>) DOES NOT EXCEED PER-OCCURRENCE LIMIT (L): INSURER WANTS MULTIPLE OCCURRENCES IF <math>\sum(C-D) &lt; (\sum C) - D</math></b>	Insurer will always want multiple occurrences because $(C-D < 0)$ , so he pays nothing. If the sum of the loss is less than one deductible ( $\sum(C)-D < 0$ ), however, he will be indifferent because he would still pay nothing.	Insurer will always want multiple occurrences because $(\sum C)-\sum D$ is always less than $(\sum C)-D$ for positive deductibles.

The standardized CGL policy provides a definition for occurrence in the face of these conflicting preferences. It provides that an occurrence is “an accident, including continuous or repeated exposure to substantially the same general harmful conditions.”<sup>49</sup> The focus of the definition is the term “accident.”<sup>50</sup> This term, however, does not provide much guidance in deciding whether one or multiple occurrences exist and allows for the doctrinal variations explored in the next Part. The definition’s ambiguity results from inattention to the issue in the drafting process, perhaps because of focus on other issues, such as the exclusion of coverage for intentional losses by choice

48. This Table makes it appear that insurers want multiple occurrences, but a disproportionate share of the situations fall in the top right box because deductibles tend to be less than the loss in order to justify obtaining insurance.

49. CGL COVERAGE FORM, *supra* note 28, at 12, reprinted in BAKER, *supra* note 20, at 424.

50. See EUGENE R. ANDERSON, JORDAN S. STANZLER & LORELIE S. MASTERS, INSURANCE COVERAGE LITIGATION § 9.02 (2007 Supplement) (discussing the history of changes in the definition of occurrence).

of the term accident and the inclusion of coverage for latent injuries like environmental and asbestos damage.<sup>51</sup> The multiple occurrence issue simply was not addressed.

## II. CURRENT THEORIES OF OCCURRENCE

Several approaches for defining the term occurrence have emerged in the case law.<sup>52</sup> Most courts look to the cause of the loss. These courts diverge, however, on whether to define cause as the proximate cause of the victim's injury or as the event causing the insured's liability. Still other courts define occurrence by reference to the effects of the situation.<sup>53</sup>

### A. Causation Theories

The dominant view is that each occurrence must have its own cause.<sup>54</sup> Courts differ, however, with respect to how to define cause, splitting into two camps.<sup>55</sup>

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51. *Id.*

52. See *Appalachian Ins. Co. v. Gen. Elec. Co.*, 863 N.E.2d 994, 998 (N.Y. 2007) (acknowledging the proximate cause, effects, and liability event approaches); Herbert J. Baumann, *Broad Form Property Liability Coverage: An Overview*, in REFERENCE HANDBOOK ON THE COMPREHENSIVE GENERAL LIABILITY POLICY: COVERAGE PROVISIONS, EXCLUSIONS, AND OTHER LITIGATION ISSUES 117, 123-24 (Peter J. Neeson ed., 1995).

53. Of course, for property damage there is no liability event because the insured is not liable: this variation does not exist for property damage policies, although some courts speak of coverage events. *E.g.*, *SR Int'l Bus. Ins. Co. v. World Trade Ctr. Props., LLC*, 467 F.3d 107 (2d Cir. 2006).

54. *E.g.*, Yin, *supra* note 17, at 1249.

55. *Koikos v. Travelers Ins. Co.*, 849 So. 2d 263, 269 (Fla. 2003) (distinguishing between liability event and proximate cause views, albeit with other language). As one court summarized,

[D]ecided cases are imprecise guides, in an event, for unless particular words have crystallized into a definite legal rule their meaning necessarily varies with time, place, occasion and the vocabulary of the user. Nor is an all-inclusive definition of accident or occurrence possible or any formulation of a test applicable in every case, for the word has been employed in a number of senses and given varying meanings depending on the relevant context.

*Home Ins. Co. v. Aetna Cas. Co.*, 1977 Fire & Casualty Cas. (CCH), 9, 13 (S.D.N.Y. 1977).

### 1. Proximate Cause Theory

Many courts hold the view that each occurrence must have a separate proximate cause. These courts find that all damages resulting from one proximate, uninterrupted, and continuing cause stems from a single occurrence.<sup>56</sup> Proximate cause, of course, is “the limitation which the courts have placed upon the actor’s responsibility for the consequences of the actor’s conduct.”<sup>57</sup> The assessment is based on reasonableness.<sup>58</sup>

The leading case for the proximate cause variation is *Appalachian Insurance Co. v. Liberty Mutual Insurance Co.*<sup>59</sup> In that case, the Third Circuit applied the “cause theory” and inquired as to whether “there was but one proximate, uninterrupted, and continuing cause which resulted in all of the injuries and damage.”<sup>60</sup> The dispute arose when Liberty Mutual sought indemnification for its settlement of a class action sex discrimination suit brought by its female employees.<sup>61</sup> Since there was a \$25,000 deductible for each occurrence, the insurer argued that the discrimination constituted multiple occurrences.<sup>62</sup> The court, however, affirmed the district court’s finding that there “was but one occurrence” because “[t]he injuries for which Liberty was liable all resulted from a common source: Liberty’s discriminatory employment policies.”<sup>63</sup> It found irrelevant that “there were multiple injuries and that they were of different magnitudes and that injuries extended over a period of time” because “[a]s long as the injuries stem from one *proximate cause* there is a single occurrence.”<sup>64</sup> The proximate causation view has been extended to numerous

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56. This language is oft-repeated. See, e.g., *Koikos*, 849 So. 2d at 273; *Truck Ins. Exch. v. Rohde*, 303 P.2d 659, 663 (Wash. 1956) (en banc).

57. W. PAGE KEETON ET AL., *PROSSER AND KEETON ON THE LAW OF TORTS* § 41, at 264 (5th ed. 1984).

58. *Id.*

59. 676 F.2d 56 (3d Cir. 1982); see Yin, *supra* note 17, at 1249-50 (“Perhaps the most commonly cited case for this proposition is *Appalachian* . . .”).

60. *Appalachian*, 676 F.2d at 61 (quoting *Bartholomew v. Ins. Co. of N. Am.*, 502 F. Supp. 246, 251 (D.R.I. 1980)).

61. *Id.*

62. *Id.* While this ruling was pro-insured in that it rejected the insurer’s arguments, the court ultimately ruled that the insurer did not have to cover the losses because the occurrence postdated the beginning of coverage. *Id.* at 63.

63. *Id.* at 61.

64. *Id.* (emphasis added). It should be noted that the court used the extended exposure part of the definition to conclude that “the definition of the term ‘occurrence’ in the *Appalachian* policy contemplates that one occurrence may have multiple and disparate impacts on individuals and that injuries may extend over a period of time.” *Id.*

areas,<sup>65</sup> including toxic contamination and products liability,<sup>66</sup> and also has been supported by several scholars.<sup>67</sup>

## 2. *Liability Event Theory*

Other courts hold that each event that gives rise to liability for the insured constitutes an occurrence. These courts look to whether the liability arose from one or multiple acts.<sup>68</sup>

The leading case for the liability event theory is *Michigan Chemical Corp. v. American Home Assurance Co.*<sup>69</sup> In that case, the Sixth Circuit began by agreeing with the “vast majority of courts,” including the court in *Appalachian Insurance*, that “the number of occurrences for purposes of applying coverage limitations is determined by referring to the cause or causes of the damage and not to the number of injuries or claims.”<sup>70</sup> The court, however, diverged from the reasoning of *Appalachian Insurance* by holding that each misshipment of a toxic flame retardant, instead of a feed supplement, to a feed distributor constituted a separate occurrence because “[t]he shipment of the substance constituted the act from which liability arose.”<sup>71</sup> It ignored the single act of

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65. *Sunoco, Inc. v. Ill. Nat. Ins. Co.*, 226 F. App'x 104 (3d Cir. 2007) (toxic contamination); *Liberty Mut. Ins. Co. v. Treesdale Inc.*, 418 F.3d 330 (3d Cir. 2005) (asbestos); *Chemstar, Inc. v. Liberty Mut. Ins. Co.*, 41 F.3d 429 (9th Cir. 1994) (failure to warn); *Associated Indem. Corp. v. Dow Chem. Co.*, 814 F. Supp. 613, (E.D. Mich. 1993) (defective pipe); *Transp. Ins. Co. v. Lee Way Motor Freight, Inc.*, 487 F. Supp. 1325 (D. Tex. 1980) (deciding that a pattern of racial discrimination is one occurrence because it comes from one policy).

66. As these examples imply, courts have been willing to use the proximate cause theory to find continuous processes to be one occurrence. See Maloney, *supra* note 17, at 929.

67. See Yin, *supra* note 17, at 1256-60 (arguing that proximate cause view comports with an original understanding of the CGL form's shift to an occurrence policy and reduces litigation by joining lawsuits together).

68. As the following examples demonstrate, the results of applying this theory often are the same as those from applying an effect theory. One commentator is right to comment that in some cases a “court applie[s] an effect theory analysis and label[s] it causation theory.” Abidor, *supra* note 17, at 366.

69. 728 F.2d 374 (6th Cir. 1984); see Yin, *supra* note 17, at 1252.

70. *Mich. Chem. Corp.*, 728 F.2d at 379.

71. *Id.* at 383. The feed distributor mixed what it thought was feed supplement with regular feed and distributed it to farmers. Tens of thousands of farm animals had to be destroyed as a result of the contamination, and hundreds of claims ensued. Michigan Chemical had total liability coverage, including excess layers, of \$28 million per occurrence. Several of the insurers argued that there was only one occurrence, the accidental shipment, while Michigan Chemical and another insurer argued that each claim constituted a separate occurrence.

mislabeled underlying all of the misshipments on the grounds that mislabeling alone does not give rise to liability. This conclusion is the equivalent of the *Appalachian Insurance* court holding that each implementation of the discriminatory policy constituted a separate occurrence on the grounds that an unenforced policy is not actionable.<sup>72</sup> Despite this difference, the *Michigan Chemical* court's decision, like the ruling in *Appalachian Insurance*, was pro-insured: it doubled the coverage for Michigan Chemical to \$56 million, well above the \$45 million in claims owed to injured farmers.<sup>73</sup>

The liability event view is also employed in the products liability context. In *Maurice Pincoffs Co. v. St. Paul Fire & Marine Insurance Co.*, the Fifth Circuit decided that an importer's distribution of contaminated birdseed to U.S. dealers eight times constituted eight occurrences.<sup>74</sup> The court disagreed with the district court's finding of only one occurrence—the contamination of the seed—“because it was the contaminated seed that caused the damage.”<sup>75</sup> Since the term occurrence should refer to “the occurrence of the events or incidents for which Pincoffs is liable” and “[i]t was the sale of the contaminated seed for which Pincoffs was liable,” the court found one occurrence for each sale.<sup>76</sup> This ruling doubled the amount the primary insurer had to pay, although it is not necessarily a pro-insured ruling because an umbrella insurer may have covered the remainder.<sup>77</sup> Other courts have followed the lead of *Michigan Chemical* and *Pincoffs*.<sup>78</sup>

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72. These first two theories should converge in products liability, where there is only one cause (the product being defective) and one event that gives rise to liability (the defective product gives rise to a class action). As noted below, however, some courts disagree in the application of this approach to products liability. See *infra* Section III.A.

73. *Mich. Chem. Corp.*, 728 F.2d at 376.

74. 447 F.2d 204 (5th Cir. 1971).

75. *Id.* at 206.

76. *Id.* While one commentator believes that *Michigan Chemical* and *Pincoffs* are two different approaches, the former based on liability from the point of view of the insured and the latter based on liability from the point of view of the injured, see Yin, *supra* note 17, at 1254-56, this distinction ignores the fact that in both cases each separate cause of action—misshipment or sale—was considered a separate occurrence. The commentator also ignores a key difference between the two cases: one is a negligence case and the other is a products liability case.

77. *Pincoffs*, 447 F.2d at 205-06.

78. E.g., *U.E. Texas One-Barrington, Ltd. v. Gen. Star Indem. Co.*, 332 F.3d 274 (5th Cir. 2003) (citing *Pincoffs*); *H.E. Butt Grocery Co. v. Nat'l Union Fire Ins. Co. of Pittsburgh, Pa.*, 150 F.3d 526, 530 (5th Cir. 1998) (citing *Michigan Chemical*); *Interstate Fire & Cas. Co. v. Archdiocese of Portland in Or.*, 35 F.3d 1325 (9th Cir. 1994) (finding four separate instances of child abuse to be four occurrences); *Irving Materials, Inc. v. Zurich Am. Ins. Co.*, No. 1:03-CV-361, 2007 WL 1035098, at \*18 (S.D. Ind. Mar. 30, 2007) (citing *Michigan Chemical*); *Mason v. Home Ins. Co. of Ill.*, 532 N.E.2d 526, 529 (Ill. App. 1988) (citing

*B. Effect Theories*

A small minority of courts reject the causation theory wholesale and instead define occurrence with respect to “effects.” These courts view each injury as a separate occurrence. In *Elston-Richards Storage Co. v. Indemnity Insurance Co. of North America*, for example, Elston-Richards negligently damaged thousands of appliances with a faulty carton-clamp on a truck.<sup>79</sup> The court found that “[a]lthough the damage to each appliance may have resulted from a single cause, that is, the manner in which the new clamp assembly on the new lift truck was operated, the damage to each appliance was a separate accident and therefore ‘one event or occurrence.’”<sup>80</sup> In contrast to the liability event theory, each new injury in the effect theory need not serve as an independent basis for liability giving rise to a separate cause of action. Other courts have ruled similarly.<sup>81</sup>

*C. A Hypothetical Example*

A hypothetical example helps to clarify the distinctions among these three theories. Consider the case of an importer of animal medicines who distributes these medicines to dealers across the country. The importer receives twelve drugs in the mail, labeled A through L, and needs to send them to twelve corresponding dealers, named A through L. Due to a policy of not operating lights in the warehouse to save electricity, the importer accidentally sends the wrong drug to each dealer: no dealer receives the correct drug. The dealers, not realizing the mistake, distribute the medicines to ten farmers each and many animals die as a result. Numerous claims ensue against the importer.

The prevailing theories differ in their treatment of this situation. A court using the proximate cause theory would trace the losses to the importer’s lights-out policy, which is arguably the root cause of all of these losses.

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*Michigan Chemical*). New York’s unfortunate event test is also a version of this approach. See Baumunk, *supra* note 6, at 328 (calling New York’s liability event view a “variant of the ‘cause’ test”). It should be noted that there are some differences within this theory, which will be discussed below in Section III.A. Some courts have found products liability to be one occurrence while others have found each sale to be an occurrence. Compare *Champion Int’l Corp. v. Cont’l Cas. Co.*, 546 F.2d 502 (2d Cir. 1976) (finding that the installation of defective paneling constitutes one occurrence), with *Irving Materials*, 2007 WL 1035098 (finding that each sale of defective concrete constitutes a separate occurrence).

79. 194 F. Supp. 673 (W.D. Mich. 1960), *aff’d per curiam*, 291 F.2d 627 (6th Cir. 1961). For a discussion of these decisions, see Yin, *supra* note 17, at 1253-54.

80. *Elston-Richards Storage*, 194 F. Supp. at 682.

81. See, e.g., *Reynolds v. S & D Foods, Inc.*, 822 F. Supp. 705 (D. Kan. 1993).

Consequently, a court using that approach would find one occurrence. The liability event theory, however, focuses on the event that gives rise to the insured's liability. Since having a lights-out policy does not by itself give rise to liability, a court would give weight to the fact that each misshipment gives rise to a new cause of action. Thus, a court would find twelve occurrences. Finally, a court applying the effect theory would consider the actual injuries. A court using this approach would find 120 occurrences—the number of farmers receiving each medicine and suffering losses. In theory, a court could break down the analysis even further and consider the number of injured animals.

### III. CRITIQUING THE CAUSATION THEORY

Two problems plague the majority causation approach to the number of occurrences issue.<sup>82</sup> First, the causation approach yields inconsistent results. Different courts find different numbers of causes, and thus different numbers of occurrences, for strikingly similar fact patterns. The inconsistency occurs both when courts apply, sometimes unconsciously, different variations of the causation approach and when they apply the same variation of the causation approach. Second, courts routinely strain the concept of proximate causation. They often find one cause in a way that eliminates proximate causation's connotation of responsibility and replaces it with but-for causation's simplistic logic. Courts also often find multiple causes in a way that inaccurately captures the seamlessness of much of human action and decisionmaking.

#### A. *The Inconsistency of the Causation Theory*

Courts have applied the causation theory to strikingly similar fact patterns with noticeably different outcomes.<sup>83</sup> The first source of inconsistency stems from the different variations of the causation approach. This variation is both conscious and unconscious: courts often claim to be applying the proximate cause view but in effect apply the liability event view. Regardless, differences between the variations prompt inconsistent results.<sup>84</sup>

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82. This Note focuses on the causation approaches and its variations because so few courts rely on the effects theory. See OSTRAGER & NEWMAN, *supra* note 20, § 9.02, at 627 (“In an older line of cases still followed in a minority of jurisdictions, courts use an *effects-oriented* approach.”).

83. One commentator has likened trying to develop a coherent theory of court decisions in this area to “the proverbial task of nailing jello to a wall.” Yin, *supra* note 17, at 1246.

84. Property damage cases have no such inconsistency because there is no liability event theory there. They only have inconsistency within the proximate cause theory.

In both *Pincoffs* and *Associated Indemnity Corp. v. Dow Chemical Co.*,<sup>85</sup> for example, the insured sold a defective product and the courts claimed to apply a proximate causation standard. The court in *Pincoffs*, discussed above, held that each sale of contaminated birdseed constituted a separate occurrence because “[i]t was the sale of the contaminated seed for which *Pincoffs* was liable.”<sup>86</sup> The court in *Dow Chemical*, on the other hand, referred to the “one, proximate, uninterrupted, and continuing cause” test and held that the production, not distribution, of defective resin was the cause of the loss.<sup>87</sup> The *Pincoffs* court in effect, if not in intent, applied a liability event standard and found multiple occurrences, while the *Dow Chemical* court applied the proximate cause variation and found one occurrence. Despite this divergence, in both cases the courts’ ruling was pro-insured: the court rejected the number of occurrences sought by the insurers.

Two cases arising from asbestos liability provide an even more striking example because the defective product was the same in both cases. In *Appalachian Insurance Co. v. General Electric Co.*, the court held that each asbestos exposure constituted a separate occurrence by applying the equivalent of the liability event approach, “the unfortunate-event approach, which is based not solely on the cause but on the nature of the incident giving rise to damages.”<sup>88</sup> In *Liberty Mutual Insurance Co. v. Treesdale, Inc.*, on the other hand, the court ruled that similar facts constituted only one occurrence on proximate cause grounds.<sup>89</sup> Despite finding conflicting numbers of occurrences, in both cases courts imposed liability on the asbestos manufacturer, not the excess insurer. Similar inconsistencies exist in other fact situations.<sup>90</sup>

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85. 814 F. Supp. 613 (E.D. Mich. 1993).

86. 447 F.2d 204, 206 (5th Cir. 1971).

87. 814 F. Supp. at 621.

88. 863 N.E. 2d 994, 998 (N.Y. 2007); *see also* *Stonewall Ins. Co. v. Asbestos Claims Mgmt. Corp.*, 73 F.3d 1178 (2d Cir. 1995) (holding that each asbestos installation constitutes a separate occurrence under relevant state law); *Plastics Eng’g Co. v. Liberty Mut. Ins. Co.*, 466 F. Supp. 2d 1071 (E.D. Wis. 2006) (same).

89. 418 F.3d 330 (3d Cir. 2005); *see also* *Owens-Ill., Inc. v. Aetna Cas. & Sur. Co.*, 597 F. Supp. 1515, 1527 (D.D.C. 1984) (holding that the manufacture and sale of asbestos-containing products constitutes single occurrence).

90. *Compare* *H.E. Butt Grocery Co. v. Nat’l Union Fire Ins. Co. of Pittsburgh, Pa.*, 150 F.3d 526 (5th Cir. 1998) (holding that two abuses by the same individual are two occurrences under a liability event view), *with* *State Farm Fire & Cas. Co. v. Elizabeth N.*, 12 Cal. Rptr. 2d 327 (Ct. App. 1992) (holding that multiple abuses by same individual are one occurrence under a proximate cause view).

Furthermore, courts reach inconsistent results even when applying the same variation of the causation approach. In *Pincoffs* and *Champion International Corp. v. Continental Casualty Co.*,<sup>91</sup> for example, both courts applied the liability event view, but they treated the existence of separate shipments differently. The *Pincoffs* court held that each of eight different shipments constituted a separate occurrence.<sup>92</sup> The court in *Champion*, however, held that twenty-six separate shipments of 1400 separate sales of paneling that turned out to be defective constituted one occurrence because of the similarity of the “underlying circumstances which resulted in the claim for damages.”<sup>93</sup> This ruling self-consciously maximized coverage: the *Champion* court noted that a ruling of one occurrence created coverage for \$1.1 million of \$1.6 million in damages while a ruling of multiple occurrence meant “there is no liability under the [insurance] policy.”<sup>94</sup> In effect, the *Champion* court decided that each class action constitutes one occurrence because one event led to the class action liability,<sup>95</sup> while the *Pincoffs* court decided that each member of a potential class action counted as a separate occurrence because each victim gave rise to more liability.<sup>96</sup> Both courts, however, ruled in a way that maximized coverage for the insured.

Just as courts reach inconsistent results under the liability event view, they often rule inconsistently when applying the proximate cause view. In *Arizona Property & Casualty Insurance Guaranty Fund v. Helme*<sup>97</sup> and *Aetna Casualty & Surety Co. v. Medical Protective Co.*,<sup>98</sup> for example, the courts applied a proximate cause view to medical negligence cases involving multiple mistakes that resulted in injury to the patient. But, the court in *Helme* found two occurrences—treating each mistake as a contributing cause<sup>99</sup>—while the court in *Medical Protective* found one occurrence—ignoring the presence of numerous contributing causes.<sup>100</sup> In *Helme*, the court credited the fact that there were

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91. 546 F.2d 502, 506 (2d Cir. 1976).

92. *Maurice Pincoffs Co. v. St. Paul Fire & Marine Ins. Co.*, 447 F.2d 204, 207 (5th Cir. 1971).

93. 546 F.2d at 505-06.

94. *Id.*

95. 546 F.2d at 506; see Yin, *supra* note 17, at 1256-58.

96. 447 F.2d at 205.

97. 735 P.2d 451, 458 (Ariz. 1987).

98. 575 F. Supp. 901 (N.D. Ill. 1983).

99. 735 P.2d at 458.

100. 575 F. Supp. at 903; see *RLI Ins. Co. v. Simon's Rock Early Coll.*, 765 N.E.2d 247 (Mass. App. Ct. 2002) (holding that numerous separate acts of negligence constituted one occurrence because all resulted in one shooting rampage by a troubled student).

multiple “diagnostic failures” on “separate days” and ignored the insurer’s argument that this view implied that “each and every time any doctor saw or examined a patient, such failure to accurately re-diagnose the condition would constitute a separate occurrence.”<sup>101</sup> This ruling doubled the amount the insurer had to pay, extending coverage to the victim’s family. In *Medical Protective*, by contrast, the court ignored the fact that there were multiple “opportunities” for the physician to prevent the injury by reevaluating his treatment course, rejecting the insurer’s argument that each doctor’s visit constituted an occurrence.<sup>102</sup> Thus, the courts rejected the insurer’s argument in both cases—in the end maximizing coverage for the injured party—but arrived at the opposite number of occurrences for strikingly similar fact patterns.<sup>103</sup>

Inconsistency of the same sort—identical fact patterns resulting in different numbers of occurrences under the proximate cause view—even plagued one court’s multipart holding in a case of child molestation. The court in *State Farm Fire & Casualty Co. v. Elizabeth N.* in effect argued that negligent supervision of the perpetrator constituted both one occurrence and multiple occurrences, depending on whether it affected one child or multiple children.<sup>104</sup> In that case, a daycare provider’s spouse abused numerous children on numerous occasions. The court held that “the insured’s liability to each child was one occurrence because each child’s injuries resulted from repeated exposure to substantially the same general conditions.”<sup>105</sup> The court argued that “[e]ven if each injury Byron [the abusing spouse] inflicted on a child resulted from a new negligent act by Lynn [the daycare provider], each act of negligence by Lynn was substantially the same—a failure to care for and supervise the child adequately.”<sup>106</sup> The inconsistency in the court’s conclusion arises from its failure to apply the same reasoning to the child abuse across multiple children in the case—while each new act required more negligence, the same “general conditions” were the cause of abuse of multiple children. There is no principled way, other than providing recovery for each child, to argue that each child

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101. 735 P.2d at 458.

102. 575 F. Supp. at 903.

103. To be sure, *Medical Protective* involved one physician while *Helme* involved two surgeons. The *Helme* court, however, did not emphasize this difference, focusing instead, like the *Medical Protective* court, on the number of diagnostic failures.

104. 12 Cal. Rptr. 2d 327 (Ct. App. 1992).

105. *Id.* at 328.

106. *Id.* at 330.

constituted a separate occurrence without also arguing that all of the children constituted one occurrence.

The inconsistency within the causation approach may arise from several sources. First, courts often express a desire to interpret insurance contracts in ways that benefit the insured or the victim.<sup>107</sup> Since the sympathetic parties lack a consistent preference on the occurrence issue,<sup>108</sup> judicial desire to benefit the injured parties results in different outcomes. As one commentator summarizes, “If there is a common theme in the decisions, it may be that the courts generally have resolved the issue by adopting a view of the number of occurrences that maximizes coverage for the insured.”<sup>109</sup> Second, different courts may approach the occurrence issue from a different level of generality. As another commentator analogizes, “the crews of a submarine and of ships which are attacked and sunk in a convoy would no doubt regard each attack and sinking as a separate occurrence,” while “[a]n admiral at Naval Headquarters might regard the whole attack and its results as one occurrence.”<sup>110</sup>

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107. Scott E. Harrington & Patricia M. Danzon, *The Economics of Liability Insurance*, in HANDBOOK OF INSURANCE 277, 293 (Georges Dionne ed., 2000) (discussing *contra proferentem*—that is, construal against the drafter).

108. See *supra* Table 1.

109. Paisch, *supra* note 1, at 3. This commentator finds this desire consistent with the hornbook preference for interpreting an ambiguous contract against the drafters, *contra proferentem*. Not all courts, and few of the courts cited in this Note, however, admit to using this canon of interpretation and instead prefer to claim that the insurance language is clear. See 2 ALLAN D. WINDT, INSURANCE CLAIMS & DISPUTES § 11.24 (5th ed. 2007); Maloney, *supra* note 17, at 928 (commenting that courts strain in favor of the policyholder under effects theory); Stempel, *supra* note 18, at 835 (noting that courts are “moderately pro-policyholder” in “close cases” on the occurrence issue); Abidor, *supra* note 17, at 360 (noting that judges “tilt toward favoring the individual policyholder and providing the greatest amount of coverage possible”); Michael F. Aylward, *Multiple ‘Occurrences’—A Divisive Issue*, COVERAGE, Jan.-Feb. 1995, at 39, 39 (noting that “courts will adopt extremely flexible constructions of ‘cause’ in order to maximize the available coverage”). Of course, courts do not openly construe the number of occurrences differently depending on whether the occurrence issue has deductible or policy limit implications. See *N. Shipping Co. v. Arkwright Boston Mfrs. Mut. Ins. Co.*, 617 F. Supp. 136, 138 (E.D. Pa. 1985) (arguing that the number of occurrences must be consistent), *aff’d*, 774 F.2d 1152 (3d Cir. 1985).

110. Derrington, *supra* note 18, at 842; see Abidor, *supra* note 17, at 354 (recognizing that “courts applying the causation test have difficulty determining the proximate cause”). One commentator believes that appealing to the reasonable expectations of the parties can cabin judges’ discretion, Abidor, *supra* note 17, at 360–61, but such a vague theory built on legal fictions also seems inherently manipulable. This issue will recur later in the discussion of defining the loss for an independence approach. See *supra* Subsection IV.A.2.

*B. Straining the Concept of Causation*

Courts also routinely analyze the number of causes during the occurrence determination in ways that strain the concept of causation. In some cases, judicial analysis of the number of causes undermines the traditional connection of proximate cause to responsibility. In other cases, judicial analysis conflicts with the seamlessness of human decisionmaking.

First, the concept of proximate causation often is stretched away from its traditional connection to responsibility when courts find one cause in situations of diffused responsibility. Proximate cause as a concept evolved to address the problem of assigning liability in a world in which multiple causes-in-fact exist.<sup>111</sup> Causes-in-fact, or but-for causes,<sup>112</sup> abound for all events.<sup>113</sup> The building of a house, for example, is strictly speaking a but-for cause of the arson of the house. But, for obvious reasons,<sup>114</sup> it is the arsonist, not the builder, who is liable for the arson. Proximate cause thus emerged as a way to limit the liability of an actor for the consequences of his conduct. To do this, courts appeal to normative notions of responsibility, often related to foreseeability or risk creation.<sup>115</sup> As the leading torts treatise recounts, proximate cause generally refers to “the limitation which the courts have placed upon the actor’s *responsibility* for the consequences of the actor’s conduct.”<sup>116</sup>

The problem in the occurrence context arises when courts find one cause when numerous entities merit assignment of responsibility. Contributing or concurrent causes, in other words, confound the causation analysis in occurrence determinations. The courts’ rulings in these types of cases often replace the proximate cause inquiry with a but-for causation inquiry: courts look to a necessary condition of the injuries—a discrimination policy or a decision to go into business—and call it the proximate cause despite the causal

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111. KEETON ET AL., *supra* note 57, § 42, at 273.

112. RESTATEMENT (THIRD) OF TORTS § 26 cmt. b (treating the two terms as identical).

113. WILLIAM L. PROSSER, HANDBOOK ON THE LAW OF TORTS § 41, at 236 (4th ed. 1971) (“The fatal trespass done by Eve was cause of all our woe.”).

114. Two types of reasons are common: corrective justice rationales limit liability to that which the defendant is morally responsible, *see* KENNETH S. ABRAHAM, THE FORMS AND FUNCTIONS OF TORT LAW 14-15 (3d ed. 2007); DAN B. DOBBS, THE LAW OF TORTS § 9 (2000), while efficiency rationales limit liability to deter future behavior over which the defendant has control, *see* ABRAHAM, *supra*, at 16; DOBBS, *supra*, § 11.

115. RESTATEMENT (THIRD) OF TORTS § 29 cmt. e (contrasting foreseeability and risk-creation tests).

116. KEETON ET AL., *supra* note 57, § 41, at 264 (emphasis added).

contribution of numerous other happenings.<sup>117</sup> By so reasoning, however, courts often undermine the very assessment of responsibility that has come to define the proximate cause concept because their choices are at worst flawed and at best unprincipled. The resulting reductionist oversimplification of causation undermines the theory underlying the turn to proximate cause in the first place. Without its connotation of responsibility, the proximate cause concept loses its normative appeal as a way of organizing legal relationships.<sup>118</sup> The confusion resulting from their errors, furthermore, adds to the inconsistency of proximate cause analysis.

For example, in numerous discrimination cases courts have found one cause: the employer's company policy.<sup>119</sup> But it is inappropriate to absolve of responsibility the implementers of a discriminatory policy. Discrimination does not occur at the snap of an executive's fingers. Rather, the implementers also discriminate and are responsible for their actions. This view underlies whistleblower law, the protections of which assume that individuals lower on the corporate food chain have some control over their actions and should be protected for refusing to violate the law. To be sure, respondeat superior principles suggest holding high-level officers responsible for their decisions. But respondeat superior only extends blame to the higher officials—it does not absolve the lower officials. At the very least, in these situations there are contributing causes of the discrimination and responsibility should be shared between the policymaker and the implementer. Finding one cause prevents this sharing of responsibility and therefore disconnects proximate cause from responsibility because the choice between executive and implementer is unprincipled.<sup>120</sup>

Asbestos case law provides an even more extreme example of stretching proximate cause beyond meaningfulness. The court in *Greene, Tweed & Co. v. Hartford Accident & Indemnity Co.*, for example, held that all of a manufacturer's products—involving “60,000 underlying asbestos claimants who were exposed

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117. As noted above, outcome-based judging likely motivates some of these decisions. Confusion over the complicated concept of proximate cause may explain other results, as this section indicates.

118. *Holmes v. Sec. Investor Prot. Corp.*, 503 U.S. 258, 268 (1992) (“At bottom, the notion of proximate cause reflects ‘ideas of what justice demands, or of what is administratively possible and convenient.’”) (quoting *KEETON ET AL.*, *supra* note 57, § 41, at 264).

119. *E.g.*, *Appalachian Ins. Co. v. Liberty Mut. Ins. Co.*, 676 F.2d 56 (3d Cir. 1982) (sex discrimination); *Transp. Ins. Co. v. Lee Way Motor Freight, Inc.*, 487 F. Supp. 1325 (N.D. Tex. 1980) (race discrimination).

120. Part of this problem stems from the inapplicability of responsibility-sharing mechanisms, such as comparative negligence, to this context. An either-or or absolute framework requires a consolidation of responsibility that reality does not bear.

to 105 different asbestos products used in very different industrial applications in at least eighteen states during different periods of time<sup>121</sup> – constituted one occurrence.<sup>122</sup> Yet, the creation of the asbestos-using business was not a sufficient cause of all the different injuries, but only a necessary cause. The creation of the business did not necessarily lead to the production of particular products, nor to the distribution to particular claimants. To see the problem with calling the creation of the business the proximate cause, consider the case of a retired businessman who builds a business and then turns it over to his heirs. The new management then begins manufacturing new products. It would strain credulity to place liability for product defects of these new products on the retired businessman. But this result is exactly what the proximate cause assessment in *Greene* demands. In this case, there is no doubt that proximate cause has been stretched beyond recognition. At the very least, there are certainly intervening causes for each product.

Second, in other cases, courts find multiple causes in a way that conflicts with the reality of human decisionmaking. This point is both biological and philosophical. For example, the court in *Koikos* ruled that two nearly simultaneous shots from the same gun in the hands of the same shooter constituted two separate causes and thus two occurrences.<sup>123</sup> It is strange, however, to speak of these different shots as if they are separate causes because it is inaccurate from a real world perspective to describe near-simultaneous gunshots as the product of multiple decisions within the mind. As the dissent in *Koikos* persuasively argued,

If this gunman had used an automatic weapon and merely kept squeezing the trigger, injuring 100 people, it would be plain that there was but one occurrence because the liability of the insured covered by the policy would arise from the insured's singular failure to prevent the gunman from shooting his weapon. If, rather than negligently providing security against a gunman, the restaurant had negligently entrusted its vehicle to a person who intentionally drove the vehicle

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121. Civil Action No. 03-3637, 2006 WL 1050110, at \*6 (E.D. Pa. Apr. 21, 2006) (quoting Plaintiff's Response to Second Notice of Supplemental Authorization, *Greene*, 2005 WL 4341823, at \*5).

122. Consistent with other asbestos cases above, the ruling in this case is pro-insurer and anti-manufacturer.

123. *Koikos v. Travelers Ins. Co.*, 849 So. 2d 263, 265 (Fla. 2003); *see also* *Am. Indem. Co. v. McQuaig*, 435 So. 2d 414, 415 (Fla. Dist. Ct. App. 1983) (finding that three shotgun blasts by the same individual within three minutes constituted separate occurrences).

into the restaurant, injuring two people, plainly there would be but one occurrence.<sup>124</sup>

Neurobiological research on reaction times confirms the dissent's skepticism that the human mind can consciously decide to activate the nerves to pull the trigger two times nearly simultaneously is well founded. "Simple" reaction time—one stimulus and one response—averages 220 milliseconds, while more complex reaction times—to recognize a stimulus or to choose a correct response to a stimulus—require much more time, nearly half a second.<sup>125</sup> At best, this evidence suggests that "near-simultaneous" gunshots involved a "choice" in less than half a second's time, hardly a solid foundation on which to distinguish two instances of responsibility. Philosophically, it is difficult to consider the decision to shoot once into a group of people as entirely separate as a cause from the decision to shoot again: both involve the same preliminary, and perhaps more significant, decision to shoot at all. The automatic weapon hypothetical is instructive as to the ethics of responsibility here: holding down the trigger would not be divided into separate decisions. In other words, a questionable distinction between acts and omissions appears to be at work in the *Koikos* court's reasoning.<sup>126</sup> Biology and philosophy, in short, suggest that in *Koikos*, there was one cause: a man decided to shoot a gun at people. This result, however, would have lowered the recovery of the insured, and thus the victim, to five hundred thousand dollars instead of one million dollars because of a per-occurrence limit.<sup>127</sup> The court's ruling of two occurrences was a pro-insured result.

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124. *Koikos*, 849 So. 2d at 274 (Wells, J., dissenting) (citation omitted).

125. D.R.J. LAMING, INFORMATION THEORY OF CHOICE-REACTION TIMES 62 tbl.5.4.3 (1968) (reporting a 220 millisecond reaction time for a simple reaction and a 384 millisecond reaction time for a recognition reaction). Numerous studies confirm that more complex reactions require more time, e.g., R. DUNCAN LUCE, RESPONSE TIMES: THEIR ROLE IN INFERRING ELEMENTARY MENTAL ORGANIZATION 208 (1986); J.M.T. Brebner & A.T. Welford, *Introduction: An Historical Background Sketch*, in REACTION TIMES 1-23 (A.T. Welford ed., 1980); William H. Teichner & Marjorie J. Krebs, *Laws of Visual Choice Reaction Time*, 81 PSYCHOL. REV. 75 (1974), including the landmark study of F.C. Donders, *On the Speed of Mental Processes*, 30 ACTA PSYCHOLOGICA 412 (W.G. Koster trans., 1969) (1869). It should be noted that the motor aspect of the reaction is consistent across the types of reactions, so that the mental processing is the only variable. Jeff O. Miller, & Kathy Low, *Motor Processes in Simple, Go/No-Go, and Choice Reaction Time Tasks: A Psychophysiological Analysis*, 27 J. EXPERIMENTAL PSYCHOL.: HUM. PERCEPTION & PERFORMANCE 266 (2001).

126. Numerous theorists have criticized the act/omission distinction for a variety of reasons. E.g., Luke Gormally, *Against Voluntary Euthanasia*, in PRINCIPLES OF HEALTH CARE ETHICS 763, 764 (Raanan Gillon ed., 1994).

127. *Koikos*, 849 So. 2d at 265.

Similarly, at times courts find what appears to be one act, but with multiple consequences, to be two causes. For example, in *State Farm Fire & Casualty*, discussed above, the court decided that negligence in supervising an adult who abused multiple children constituted separate causes.<sup>128</sup> It seems more accurate to say, however, that one mistake—negligent supervision—with multiple effects occurred. In fact, this is exactly what the court decided when it came to the abuse of each child, as the discussion above noted.<sup>129</sup> The court correctly ruled in that part of the case that not realizing and continuing to perpetuate a mistake is not necessarily another mistake under a negligence standard.

#### IV. AN INDEPENDENCE APPROACH

The previous Part argued that current doctrine is inconsistent. The choice between the variations of the causation approach is standardless. The application of the particular variations is unprincipled, and perhaps even outcome based. And the variations are at times internally incoherent. An independence test, in which the court determines the number of occurrences by looking to whether the injuries are independent of each other, thus has the opportunity to provide, and in fact does provide, two obvious advantages. First, it allows for more consistency than the fuzzy causation inquiry because of its statistical, not metaphysical, basis.<sup>130</sup> Second, it reduces the opportunity for outcome-based judging.

More importantly, an independence approach better comports with the intent of the parties. That insurable events are independent of each other is a fundamental assumption of the operation of insurance. It is therefore reasonable to presume that in most cases the parties contract for insurance with this background principle in mind.<sup>131</sup> Interpreters of the contract should use, as a default rule, this independence principle to determine the scope of coverage.

This Part first briefly discusses the independence assumption of insurance. It next describes how an independence test functions in practice. Then, the

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128. *State Farm Fire & Cas. Co. v. Elizabeth N.*, 12 Cal. Rptr. 2d 327 (Ct. App. 1992).

129. See *supra* text accompanying notes 104-106.

130. There is also only one variation, unlike the two variations of the causation approach.

131. To be sure, unsophisticated insured parties may not have this principle in mind to the same extent as sophisticated insurers and insured parties. That is not to say that they have another principle, such as the causation approach, in mind. Rather, unsophisticated insured parties likely lack any specific intention, especially given the standardization of insurance forms and the market power of insurance companies. Obviously, this phenomenon is a problem, but it is a general one in insurance that has little bearing on this Note, as it equally affects any method of interpretation of insurance contracts.

Part advances three reasons supporting an independence approach. Finally, it addresses counterarguments to the independence proposal.

### A. *The Independence Model in Practice*

Because insurance systems rely on the law of large numbers, insurers assume that the events for which they pay out—occurrences—are independent. This assumption allows insurance companies to predict payouts because of knowledge and estimates of accident—occurrence—rates and of average losses per occurrence.<sup>132</sup> When occurrences are not independent, however, insurance companies cannot rely on the law of large numbers, and thus cannot accurately predict their expected payout, because they cannot predict the average number of occurrences.<sup>133</sup> In other words, nonindependence undermines the insurance system.<sup>134</sup>

An inquiry into the statistical independence of two events requires courts to make a different type of finding than that made in typical causation analysis. This Section discusses the functioning of this new test in practice. It first details the types of probabilities required for the independence determination, discusses the decisions to be made regarding these probabilities, and details the sources of such data. The following Section provides a further account of the reasons an independence approach is superior to a causation approach.

#### 1. *The Probabilities in an Independence Test*

The determination that two events are independent requires the application of basic statistical analysis to empirically based probabilities. Formally, two events A and B are independent if and only if  $P(A \cap B) = P(A)P(B)$ .<sup>135</sup> In other words, the probability that both A and B occur (called the probability of the intersection of A and B, denoted  $P(A \cap B)$ ) must be the same as the product of the probability of A and the probability of B. The determination of independence, therefore, requires three probabilities: the probability that both events occur, the probability that A occurs, and the probability that B occurs.<sup>136</sup>

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132. See BAKER, *supra* note 20, at 3.

133. Of course, uncertainty in the causation approach compounds this problem.

134. This Note is indebted to George Priest for first working with me on this approach in a course on insurance law at the Yale Law School.

135. MOORE & MCCABE, *supra* note 38, at 295.

136. This formula readily generalizes to the case of more than two events. See *id.*

Abstract statistics translate easily to the insurance context.  $P(A)$  and  $P(B)$  are the probabilities of loss, such as the destruction of a building or the abuse of a child. Furthermore, in insurance,  $P(A)$  and  $P(B)$  are identical because the important inquiry is whether similar losses are independent, such as the loss of two nearby buildings, as in *World Trade Center Properties*,<sup>137</sup> or the abuse of two children, as in *Elizabeth N.*<sup>138</sup> Consequently,  $P(A)P(B)$  is in actuality  $P(A)P(A)$  because  $A$  is similar to  $B$ , such that the probability of each is the same by definition. The intersection of  $A$  and  $B$  is the probability that both losses occur, such as the probability of the destruction of two buildings or the abuse of two children.

## 2. Defining the Loss

At this point, it is important to clarify that events  $A$  and  $B$ , the events for which insurance is purchased and sold, must be defined in order to ascertain their probabilities. In this determination, courts should concentrate on the intent of the contracting parties because insurance contract interpretation, like contract interpretation generally, is about the bargain struck by the parties. In insurance, furthermore, the intent of the parties is crucial because of the probabilistic calculations parties make when contracting for insurance. The entire system, in this sense, relies on implementation of the expectations of the parties. It is this same focus on intent that motivates the turn to independence as a background presumption embedded in the occurrence concept. Intent, therefore, properly underlies the definition of the loss as well. Evidence of intent may be actual or presumed. Actual intent may be derived from explicit provision or bargained rates. Presumed intent can be derived from industry standards, common sense, or other areas of law.

The determination of intent is first and foremost a matter of contract.<sup>139</sup> For example, in the case of incidents of negligent supervision of an adult who abuses multiple children,<sup>140</sup> the events for which insurance was purchased are determined by the insurance contract. It is possible that the insured purchased insurance for child abuse—a school might be likely to do so. It is also possible that the insured purchased insurance for negligent supervision resulting in injury—a large corporation is unlikely to purchase child abuse insurance. If the latter, the relevant loss is negligent supervision causing injury, and the court

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137. *World Trade Ctr. Props., L.L.C. v. Hartford Fire Ins. Co.*, 345 F.3d 154 (2d Cir. 2003).

138. *State Farm Fire & Cas. Co. v. Elizabeth N.*, 12 Cal. Rptr. 2d 327 (Ct. App. 1992).

139. See *supra* Part I.

140. See, e.g., *Elizabeth N.*, 12 Cal. Rptr. 2d 327.

must determine the probability of such negligence.<sup>141</sup> If the former, the event is child abuse and the court must determine the probability of such abuse. Clearly, the probabilities for negligent supervision resulting in injury and child abuse may differ. The touchstone is the intent of the parties.

In some cases, the contract will not be explicit about the loss but actual intent can be clearly derived from the bargained rates. The way in which premiums were calculated and the decisions to seek insurance were made provide significant evidence of intent. If the premium of a widget manufacturer, for example, reflects the going rate for products liability insurance for widgets, losses should be defined with respect to liability for widgets—that is, damage from a product constitutes a loss. If, on the other hand, the rate reflects the industry rate for regulatory compliance issues, then loss may be defined by problems in the plant, such as a lights-out energy saving policy.<sup>142</sup> Of course, premiums often include many rates, but these can be disaggregated in the same way that riders for specific coverage can be added to standard form policies and specific coverage can be negotiated for and purchased on its own.

Even without this direct evidence, in some cases industry practice indicates why insurance was purchased. Though a product manufacturer may buy a CGL policy, the industry practice indicates that this policy is intended to cover losses from products liability and that the premiums reflect such understandings. It would contravene common business practice to define losses in a way other than the principle of one individual product-related injury, one loss, such as the principle of one division of a company, one loss. Businesses do not purchase products liability insurance to cover losses organized by the internal structure of their organizations but rather losses organized by the injuries themselves. If multiple injuries count as one loss, businesses have been severely underinsuring. Other contracts contain similar evidence for the presumption of intent in defining the loss: in property insurance, for example, the loss of a building to fire is necessarily perceived as the loss of the entire building, not individual floors. In the gunshot context, the shooting of two individuals is reasonably defined as two losses because two individuals are present and shot separately. In short, common sense reasoning, especially regarding separation of time and space of losses, provides a

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141. The best way to do so is probably through insurer payouts, as recorded by industry groups, but other methods are also available. See *infra* Subsection IV.A.3 (discussing sources of data).

142. The CGL policy is a combination of numerous risks. The task would be to look at the breakdown for particular risks—the marginal increase in the premium for the addition or subtraction of coverage for a particular type of loss.

reasonable way to presume intent in the loss definition context—an inquiry necessary to make insurance contract interpretation under an independence approach fully based on the intent of the parties.

Other areas of law often support these intent determinations. Respect for the individual, for example, makes it seem contrary to the intent of the parties to view the death of numerous individuals as one loss.<sup>143</sup> The importance attached to property ownership may provide similar intentions for insured parties that suffer losses on multiple properties, such as in the WTC case. For example, if for some reason multiple properties are not clearly separated in the insurance contract, American law's emphasis on property indicates that individuals have separate interests in each property, not one collective interest as a property holder in the abstract. The point is that other areas of law evidence common sense perceptions that assist in the determination of intent in defining losses by providing evidence of the relationship of values to insurable interests.

As this inquiry becomes further removed from the explicit contractual definition of loss, the independence approach arguably increasingly resembles

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143. It is arguably a background principle of the American constitutional framework—a principle transportable as a background presumption of insurance contracting—that individuals should be treated equally because of the value of individuals, not the value of equality in itself. A similar point can be drawn from the outcry over unequal payouts, depending on earnings, from the World Trade Center Victim Compensation Fund (VCF). See LLOYD DIXON & RACHEL KAGANOF STERN, COMPENSATION FOR LOSSES FROM THE 9/11 ATTACKS, at xxiv (2004) (“First, tailoring payments to expected lifetime earnings meant that some families received considerably more than others. Those who received less wondered why the lives of their loved ones were less valued than those of others who made more money. It is not clear, however, that a more equal distribution of payments would have resulted in any less divisiveness among beneficiaries, given the complaints about the VCF from families of the highest wage earners.”); Christopher Lee, *Report on Sept. 11 Fund Is Released: Program a Success, but Equal Payouts to Victims Would Have Been Better, Master Says*, WASH. POST, Nov. 18, 2004, at A3 (“The federal compensation for victims of the Sept. 11, 2001, terrorist attacks could have been distributed more fairly and efficiently if equal payouts had been given to all families instead of basing awards on factors such as the victim’s age and potential lost income, according to the fund’s administrator.”); Kelly Patricia O’Meara, *September 11 Fund Gets Jeers, Not Cheers: Critics of the Federal Victim Compensation Fund Say Its Rules on How Victims’ Families Will Be Compensated for Pain, Suffering and Lost Wages Are Discriminatory*, INSIGHT, Feb. 18, 2002, at 19, 19 (“[Oklahoma Republican Governor Frank] Keating empathizes with the survivors, but questions the fairness of the formula. ‘For taxpayers to have their money distributed on the basis of education, social status and income,’ he exclaims, ‘is fundamentally inequitable and un-American. This legislation sets a precedent by effectively saying that the person who washed dishes at the World Trade Center isn’t worth as much as the person whose dishes were being washed—that the dishwasher’s life is worth less because of his career choice.’”).

the causation approach, so that the independence model is no advance.<sup>144</sup> But this transformation is neither likely nor complete for several reasons. First, in many cases actual intent will exist or presumed intent will be readily deducible. This focusing and cabining of judicial discretion is itself an advancement over a largely standardless and manipulable proximate causation inquiry.<sup>145</sup> Second, even when intent evidence is lacking, the turn to industry standards and practice produce a more objective method than the metaphysical causation inquiry, which is moral and normative, not descriptive.<sup>146</sup> Finally, in the event that both of these objective measures fail, analysis through common sense and other areas of law, while mimicking the causation approach in some ways, is still tethered to intent. Common sense judgments tethered to intent, in turn, are more constrained and more related to the parties' expectation than causation metaphysics, which is necessarily untethered. This foundation limits the plausible range of outcomes, and this increased certainty is an advantage.<sup>147</sup> The standard, in short, is not whether the independence approach is perfectly objective at all times—it is not always objective because intent is not always ascertainable. Rather, the question is whether the independence approach is an advance over the causation approach. On that metric, it passes.<sup>148</sup>

A related way of putting the problem is that in some areas of insurance, probabilities of events may be calculated at different levels of specificity. The probability of an event, in other words, depends on the characterization of the event, not just the counting of how many such events occurred. Commentators have noticed an analogous problem in the causation approach, in which determining the number of causes depends “on the position in which the person who has to make the determination is placed.”<sup>149</sup> To continue with the child abuse example, assuming the party contracted for child abuse insurance, and not negligent supervision, it may be the case that different probabilities

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144. I would like to thank Kenneth Abraham for raising this point.

145. Nor is this response comparing the ideal to the real.

146. The shift from “is” to “ought” is not problematic because intent, through which practice is presumed, bridges the gap.

147. The reliance factor in *stare decisis* illustrates the value of certainty in the law. See *Planned Parenthood of Se. Pa. v. Casey*, 505 U.S. 833, 854 (1992) (O'Connor, J.) (arguing that in deciding whether to overturn precedent courts should look to “whether the rule is subject to a kind of reliance that would lend a special hardship to the consequences of overruling and add inequity to the cost of repudiation”); *id.* at 996-97 (Scalia, J., concurring in the judgment in part and dissenting in part).

148. See *supra* Section IV.B (discussing reasons for the independence approach and providing a cost-benefit analysis).

149. Derrington, *supra* note 18, at 841-42 (quoting *Kuwait Airway Corp. v. Kuwait Ins. Co.*, (1996) 1 Lloyd's Rep. 664 (Q.B)).

apply depending on what degree of detail is used to describe an event and an insured party. Child abuse may be characterized, for example, as child abuse in an elementary school setting (most specific), child abuse in a school setting (intermediate), and child abuse in a setting where children and adults readily interact (most general). In other words, the probability of child abuse is affected by the setting category.

Courts faced with this similar formulation of the problem should focus on the same progression as this Section indicates: (1) actual intent through (a) an explicit provision, or (b) bargained rates; and (2) presumed intent through (a) industry standards, (b) common sense, or (c) other areas of law. The focus, above all, should be on the intent of the parties, as it is this intent that serves as the basis for the calculation of the probabilities underlying insurance rates and contracts. It is also this focus on intent that justifies the presumption of independence in the occurrence concept. While this need to focus on intent is clear in the abstract, the factual intensity of particular accident narrative can both obscure it theoretically and complicate it emotionally for the adjudicator. Adjudicators, as many commentators point out, often decide cases without the time to reflect on first principles and with grieving parties immediately before them.<sup>150</sup> Yet, this determination is critically important because the characterization of an event may affect the probability used by the court in the independence calculation if different characterizations result in varying probabilities.

### 3. *Sources of Data*

As the above formula and discussion suggests, the calculation of independence flows easily once the statistics are obtained. The probabilities can be readily calculated from historical and scientific data already compiled and used by insured parties, insurance companies, industry groups, scholarly researchers, and policymakers.<sup>151</sup> The fact that accidents are noteworthy and, consequently, that numerous individuals count them guarantees ready and available sources of data.

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150. See sources cited *supra* note 109.

151. See CONTRIBUTIONS TO INSURANCE ECONOMICS (Georges Dionne ed., 1992); DAVID A. LEREAH, INSURANCE MARKETS: INFORMATION PROBLEMS AND REGULATION (1985); Michelle F. Boardman, *Known Unknowns: The Illusion of Terrorism Insurance*, 93 GEO. L.J. 783, 815 (2005) (“Insurance risks are calculated using scientific or historical data.”).

First of all, the two probabilities of the events occurring by themselves,  $P(A)$  and  $P(B)$ ,<sup>152</sup> are the very probabilities on which insurance companies and insured parties ground their risk assessments and premium calculations.<sup>153</sup> In order to sell insurance for products liability, for example, insurance companies assess the rate of product defects. Insurance companies calculate the premium they need to charge by multiplying the predicted size of a payout by the incidence of payouts to determine an expected payout, to which they add a profit term. The incidence of payouts is a function of the number of accidents.<sup>154</sup> This rate is tabulated from historical data.

Data is available from numerous sources in the industry.<sup>155</sup> Insurers collect their own data so as to price their products. Insured parties, particularly sophisticated parties, make similar calculations when deciding to pay particular premiums, to shop for other premiums, or to self-insure.<sup>156</sup> Insurance data is also pooled by numerous organizations that exist because of state reporting requirements.<sup>157</sup> Insurance regulators exercise oversight over rates, and need

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152. Often, it bears repeating, only one probability will be needed because the two events in question will be substantially similar, such as multiple gunshots or multiple instances of products liability. In these cases, an important question will be deciding whether the events are in fact similar. The factors discussed above regarding defining events should guide this decision.
  153. See generally M.E. ATKINSON & D.C.M. DICKSON, AN INTRODUCTION TO ACTUARIAL STUDIES (2000) (describing the formulation of risk assessments).
  154. Of course, the payout rate is not necessarily the same as the accident rate due to transaction costs and human error in the insurance system: the rate includes an error term for improper payouts due to litigation error, insurance fraud, and insurance company error. These three errors are themselves subject to calculation and, therefore, an accident rate can be determined. See Harrington & Danzon, *supra* note 107, at 291.
  155. Insurers may be required to produce such data in discovery for trial, although that inquiry is beyond the scope of this Note. It is unlikely such procedures will bias the data given both the necessity of accurate data for insurance companies to operate and, even in the face of dishonesty, the presence of both numerous insurance companies with competing datasets and trade associations compiling data.
  156. The most prominent example, perhaps, is the decision of asbestos manufacturers to self-insure. See, e.g., Keene Corp. v. Ins. Co. of N. Am., 667 F.2d 1034 (D.C. Cir. 1981) (involving a self-insured asbestos manufacturer). Many doctors have also recently made this decision. See Damon Adams, *Doctor's Self-Insurance Found To Meet Standard*, AM. MED. NEWS, July 25, 2005, <http://www.ama-assn.org/amednews/2005/07/25/prsbo725.htm> (chronicling a West Virginia doctor winning the right to self-insure in court); David B. Mandell & Jason M. O'Dell, *Pay Up, Self Insure, Go Bare, or Quit Medicine*, PHYSICIAN'S NEWS DIG., Aug. 2008, <http://www.physiciansnews.com/business/808mandell.html> (noting that hundreds of medical groups have begun self-insuring).
  157. See, e.g., Insurance Services Office, *Helping Insurers Price Their Products*, <http://www.iso.com/About-ISO/ISO-Services-for-Property-Casualty-Insurance/Helping->

data on premiums and losses to do so.<sup>158</sup> The ISO, for example, gathers information from insurers on hundreds of millions of policies regarding premiums and losses. It then uses that information to create products and services that assist insurers in pricing their products.<sup>159</sup>

This last point regarding regulation confirms that the insurance industry is not the only source of this data. Nonparties to the insurance contract also have such data in a wide variety of cases. For products liability, for example, consumer groups constantly evaluate products and services,<sup>160</sup> government product safety commissions analyze safety in the licensing process,<sup>161</sup> attorneys general catalogue complaints about manufacturers and retailers,<sup>162</sup> and scientific researchers study complicated products as part of basic and applied research.<sup>163</sup> Policymakers also routinely estimate the number of accidents when assessing the effect of legal reforms.<sup>164</sup>

This type of data has made its way into the courts, most commonly in insurance fraud cases. In *United States v. Veysey*, for example, the Seventh Circuit considered evidence regarding the probability of fire in residential

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Insurers-Price-Their-Products.html (last visited May 4, 2009) (“We submit summaries of that information to insurance regulators—as required by law—to help the regulators evaluate the price of insurance in each state.”).

158. For a useful overview of insurance regulation, see generally National Association of Insurance Commissioners, [http://www.naic.org/index\\_about.htm](http://www.naic.org/index_about.htm) (last visited May 4, 2009).
159. See, e.g., Insurance Services Office, *supra* note 157; Independent Statistical Service, Inc., <http://www.iss-statistical.net> (last visited May 4, 2009) (“The Independent Statistical Service Inc. (ISS) serves more than 450 companies reporting in excess of \$115 billion in annual written premium.”).
160. The most prominent example is Ralph Nader’s watchdog group, U.S. Public Interest Research Group. See, e.g., LIZ HITCHCOCK & EDMUND MIERZWINSKI, TROUBLE IN TOYLAND: THE 23RD ANNUAL SURVEY OF TOY SAFETY (2008) (collecting data on toy safety), available at <http://www.uspirg.org/uploads/UK/NE/UKNERu1SS4LqBkfsij8gAA/2008ToylandReport.pdf>.
161. The federal government’s Consumer Product Safety Commission is one example, although states have their own such agencies.
162. Most offices of state attorneys general focus on consumer complaints. See, e.g., Maryland Attorney General, Consumer Protection, <http://www.oag.state.md.us/Consumer/index.htm> (last visited May 4, 2009).
163. FDA-related research is perhaps the most prominent example.
164. Both legislatures and agencies are active in assessing accident rates. For example, in studying speed limits, automobile accidents are surveyed. E.g., NAT’L HIGHWAY TRAFFIC SAFETY ADMIN. NAT’L CTR. FOR STATISTICS & ANALYSIS, TRAFFIC SAFETY FACTS: 2007 DATA, [http://www.nhtsa.dot.gov/portal/nhtsa\\_static\\_file\\_downloader.jsp?file=/staticfiles/DOT/NHTSA/NCSA/Content/TSF/2007/810993.pdf](http://www.nhtsa.dot.gov/portal/nhtsa_static_file_downloader.jsp?file=/staticfiles/DOT/NHTSA/NCSA/Content/TSF/2007/810993.pdf) (last visited May 4, 2009).

homes.<sup>165</sup> Veysey was convicted of mail and wire fraud for setting fire to four residences and inflating the insurance claims thereon. To prove the insurance fraud, the government relied on the testimony of an actuary. The actuary first calculated the probability of residential fires, and then calculated the probability of four residential fires occurring by chance, one in 1.773 trillion, assuming independence.<sup>166</sup> While Judge Posner took the lawyers for Veysey to task for not criticizing the independence assumption and chosen reference class of the actuary,<sup>167</sup> the court affirmed the conviction. The case demonstrates both that data relevant to the independence calculation exists and that courts can grapple with issues related to statistical calculations, including defining the loss, a reference class problem.<sup>168</sup>

The probability of the intersection of A and B is similarly accessible. In order to ensure sufficient capital reserves, insurers must estimate the amount of injury associated with particular accidents.<sup>169</sup> This prediction is based on the type of injury that may occur.<sup>170</sup> And a major determinant of the type of injury is whether A and B, just A, just B, or none of the three occurs. Government agencies, policymakers and other researchers, of course, may make similar estimates for this probability just as they do for the probability of individual events, in the course of their decisions regarding regulatory requirements. In fact, insurance companies routinely perform it themselves in the ordinary course of business when deciding what types of risks to insure: scholars often point out that the rationale for the war exclusion, environmental exclusions, and the dearth of terrorism insurance stems from insurer's calculation of the dependence of these risks.<sup>171</sup> This type of calculation is also relevant for insurance fraud investigations, an increasing concern of insurers.<sup>172</sup> As Veysey

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165. 334 F.3d 600 (7th Cir. 2003).

166. *Id.* at 603.

167. *Id.* at 603-04.

168. Experience with DNA evidence and its reliability evidences similar judicial analysis of statistics. See cases cited *infra* note 224 (deciding whether to admit DNA evidence based on its statistical reliability).

169. See BAKER, *supra* note 20, at 2-3.

170. See Boardman, *supra* note 151, at 812 (describing how an insurer calculates the necessary reserve by estimating total losses).

171. See, e.g., *id.*; Sean B. Hecht, *Climate Change and the Transformation of Risk: Insurance Matters*, 55 UCLA L. REV. 1559 (2008).

172. See Bruce R. Fox, *Technology: The New Weapon in the War on Insurance Fraud*, 67 DEF. COUNSEL J. 237 (2000); ISO, Claims Information and Tools To Fight Fraud, <http://www.iso.com/About-ISO/ISO-Services-for-Property-Casualty-Insurance/Claims-Information-and-Tools-to-Fight-Fraud.html> (last visited May 4, 2009).

indicates, it is useful to know the probability of multiple losses when detecting and prosecuting insurance fraud, in that case the likelihood that multiple residential fires might occur.

#### 4. *Legal Independence*

The independence test presumes both that relevant data is available and that insurers only insure purely independent events. The foregoing Subsection has intimated some potential problems with the former presumption—data is often but not always of the exact type needed for independence analysis. Similarly, there is also some reason to think—based on the existence of specialized insurance for dependent risks like natural disasters—that insurers do not always require perfect independence, either as a result of the above mentioned data imperfections or because near-independence presents such a small risk of devastating loss that it is not problematic from a business standpoint. A concept of legal independence as a standard lower than perfect independence, therefore, may be useful. While a legal independence contractual standard still requires an inquiry into independence, it does not require complete lack of correlation of losses.

A standard of legal independence can come from two sources: regulators or parties. Regulators—state legislatures and, more likely, insurance commissioners—may want to set a certain level of independence as a requirement in order to assure the viability of the insurance system. Just as insurance regulators establish requirements and conduct oversight over reserves and practices, so they may also want to assure that insurance companies do not become insolvent—harming victims who vote—due to the insuring of dependent risks. The plausibility of the failure of large insurance companies is particularly salient since the bailout of AIG, which also highlights the potential ramifications of the failure of insurance companies for the public fisc. The creation of the World Trade Center Victim Compensation Fund provides one example of regulators' awareness and action in the face of such insurer solvency concerns.<sup>173</sup> Regulation by government, however, would likely be minimal in the form of floors for independence, like other floors set by regulators, such as reserve requirements, and thus not particularly interventionist.

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173. See DIXON & STERN, *supra* note 143.

Second, and more likely to occur, the parties themselves may contract for insurance of certain kinds of dependent risks.<sup>174</sup> The insured parties may be willing to pay a premium to protect against natural disasters or other dependent risks and insurers may be willing to take on dependent risks as an aggressive investment in the risky portion of their insurance portfolios. To some extent, this practice already occurs: flood insurance is available for a price.<sup>175</sup>

An independence approach to determining the number of occurrences should not preclude the contractual freedom to conduct these types of transactions. Courts reviewing such arrangements should respect the parties' choice for the same reason an independence approach is valuable: consistency with parties' intent. It should be noted that not all legal independence arrangements will be explicit, especially for those already in existence. Thus, to ascertain expectations as best as possible, courts should progress through the actual and presumed intent steps in the previous Subsection regarding defining the loss.

Permitting a legal independence concept, consequently, has two advantages over requiring strict independence. First, as alluded to above, flexibility is consistent with the intent-based rationale of the independence approach. If the parties intend to contract for insurance for dependent losses, so the argument extends, they should be free to do so for the same reason that the baseline presumption of their intention for independence should carry weight. Second, the concept also has the advantage of "grandfathering in" insurance policies contracted before a change to an independence approach. Interpretive methods affect drafters of private law as well as public law,<sup>176</sup> so a change to independence is likely to affect the way insurance contracts are written, but only in the future. A legal independence approach bridges this gap, and allows current practices of insuring dependent risks to continue.

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174. This flexibility is consistent with the flexibility with in the independence approach to contract for particular ways of defining losses. See *supra* Subsection IV.A.2.

175. The price in the market, although high, is also deflated by government subsidies, highlighting the problems of insuring dependent risk. *The Budgetary Treatment of Subsidies in the National Flood Insurance Program Before the S. Comm. on Banking, Housing, and Urban Affairs* (2006) (statement of Donald B. Marron, Acting Director); JAYETTA Z. HECKER, DIR. PHYSICAL INFRASTRUCTURE, FLOOD INSURANCE: CHALLENGES FACING THE NATIONAL FLOOD INSURANCE PROGRAM (2003), available at <http://www.gao.gov/new.items/do3606t.pdf> (submitted as testimony to the House Subcommittee on Housing and Community Opportunity of the Committee on Financial Services).

176. One side in the debate over legislative history presumes as much.

### B. Advantages of an Independence Approach

The independence approach is not flawless. As the discussion in the previous Section indicated, loss definition problems, data availability issues, and legal independence practices may complicate the theoretical simplicity of the model. Despite these potential issues, the independence approach is superior to the causation approach for three reasons.

First, the independence approach is more likely to be consistent with the intent of the parties.<sup>177</sup> In contract law, the intent of the parties is the touchstone for interpretation of ambiguous terms.<sup>178</sup> As the *Second Restatement of Contracts* summarizes, “Where the parties have attached the same meaning to a promise or agreement or a term thereof, it is interpreted in accordance with that meaning.”<sup>179</sup> Even more intent-focused, another section promises that “if the principal purpose of the parties is ascertainable it is given great weight.”<sup>180</sup> This principle is equally applicable to insurance contracts. As the Second Circuit has remarked, “The cardinal principle for the construction and interpretation of insurance contracts—as with all contracts—is that the intentions of the parties should control.”<sup>181</sup> Furthermore, there is significant support for the view that insurance contracts should be interpreted according to the “reasonable expectations” of the parties.<sup>182</sup>

In insurance contracting, there are several reasons to believe that the parties contract in the shadow of a background principle that losses are independent.<sup>183</sup> First, the independence of losses is a fundamental assumption of insurance systems.<sup>184</sup> Without it, insurers risk catastrophic, business-ending losses. Consequently, it would be anomalous if insurers, knowing the effects of

177. Making the independence approach a default rule has the advantage of forcing those parties who have idiosyncratic preferences, particularly the willingness to insure correlated risks or pay higher premiums for insurance for correlated risks, to convey those preferences. In other words, it is information forcing, and in the very cases currently most likely to be treated poorly by the causation approach—those with dependent losses.

178. RESTATEMENT (SECOND) OF CONTRACTS §§ 201-203 (1981).

179. *Id.* § 201.

180. *Id.* § 202.

181. *Newmont Mines Ltd. v. Hanover Ins. Co.*, 784 F.2d 127, 135 (2d Cir. 1986).

182. See Robert E. Keeton, *Insurance Law Rights at Variance with Policy Provisions*, 83 HARV. L. REV. 961 (1970) (defining the reasonable expectations theory); Abidor, *supra* note 17, at 358-59; Yin, *supra* note 17, at 1257.

183. To be sure, in insurance contracts with unsophisticated parties, intent is a legal fiction. The law, however, generally relies on such a fiction to hold the contract valid at all.

184. See *supra* Part I.

the dependence of losses, were to ignore them in their insurance contracting.<sup>185</sup> Second, empirical evidence demonstrates that insurers generally do not provide insurance for dependent risks. The typical industry response to dependent losses is not to provide insurance. Most prominently, the industry typically does not cover losses from war or nuclear attack.<sup>186</sup> It is also less likely for insurers to insure all or even multiple gun manufacturers or chainsaw manufacturers.<sup>187</sup> The causation approach, on the other hand, does not rest on principles of insurance, so there is no reason to suspect parties contract with it in mind, other than because of past judicial decisions.

Nonetheless, as the legal independence discussion indicates, the independence approach should be a default rule, and not a mandatory rule, because insurers sometimes provide insurance for correlated losses, but charge a higher premium to do so. Flood insurance, for example, is available, though private companies generally charge such high rates that they are crowded out by government-subsidized or government-run insurers.<sup>188</sup> Similarly, the causation approach at times results in the insurance of correlated losses, but insurers still provide insurance despite this legal doctrine. The child abuse and medical malpractice examples discussed below are prime examples. The

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185. The intent of the insured surely matters on this point. The willingness of insured parties to pay high premiums for natural disaster insurance, for example, provides some evidence of awareness of the phenomenon of dependent losses. Of course, as in most contracting situations, more sophisticated parties are more likely to be aware of the theories underlying economic phenomena.

186. See ORG. FOR ECON. CO-OPERATION & DEV., TERRORISM RISK INSURANCE IN OECD COUNTRIES 117 (2005) (explaining why companies do not provide terrorism insurance); Stempel, *supra* note 18, at 818 (“Nearly all of these [September 11] policies, like almost all insurance policies, contain some type of war risk exclusion.”).

187. I thank Kenneth Abraham for highlighting this example.

188. I thank George Priest for pointing out this problem. See CATO HANDBOOK FOR CONGRESS 432 (2001), available at <http://www.cato.org/pubs/handbook/hb107> (“The subsidized rates and limited underwriting and risk classification of federal government insurance programs aggravate adverse selection, discourage efficient risk management, and crowd out market-based alternatives.”); U.S. TREASURY, REPORT TO CONGRESS: ASSESSMENT: THE TERRORISM RISK INSURANCE ACT OF 2002, at 7 (2005); J. David Cummins, *Should the Government Provide Insurance for Catastrophes?*, 2006 FED. RES. BANK ST. LOUIS REV. 337; Emil Henry, Jr., Assistant Sec’y for Fin. Insts., Remarks Before the National Association of Insurance Commissioners Conference (Feb. 6, 2006), available at <http://www.treas.gov/press/releases/js4097.htm> (“In June of last year, Treasury delivered to Congress its report on the effectiveness of [Terrorism Risk Insurance Act] TRIA. We concluded that TRIA had been effective in achieving its fundamental goal of enhancing the availability and affordability of commercial property and casualty terrorism risk insurance, including allowing time for rebuilding the capacity of the private sector, but was ‘crowding out’ further private market development.”).

causation approach likely results,<sup>189</sup> therefore, in higher premiums or underprovision of insurance in those areas<sup>190</sup> – an undesirable cost imposed by the legal system that decreases the accessibility of insurance, which “governs our lives.”<sup>191</sup> Regardless, the independence interpretive method should be a default because insurance of dependent losses can still be more efficient than noninsurance given high levels of risk aversion. The independence approach, in other words, should be rebuttable because of the existence of situations in which insurers provide insurance for correlated losses and insured parties compensate for this added risk with higher premiums.

The second advantage of the independence approach is that it is more objective than the causation approach. The independence approach is statistical, not metaphysical. Causation analysis, as the prior sections demonstrated, is abstract. Courts make theoretical determinations regarding degrees of connection – proximateness – between events and, inevitably, and in fact are supposed to, rely on normative conceptions of responsibility.<sup>192</sup> These determinations are highly subjective. The incoherence, inconsistency, and manipulability described in Part III provide evidence for this subjectivity. Independence analysis, in contrast, relies on numbers, not abstract reasoning as to causality. As many decision-making theorists have noted, it is harder to manipulate and err in the calculation of statistics than in the assessment of qualitative variables.<sup>193</sup> With the help of statistical analysis and the rebuttable default that the parties do not intend to cover correlated losses, the inquiry is clearly objective.

Even in the few cases where statistics do not exist, armchair independence analysis is more objective than causation approaches because it is focused on the intent of the parties. Without the help of statistics, this inquiry undoubtedly becomes more abstract, and thus more akin to the metaphysical

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189. To be sure, the uncertainty and inconsistency of the causation approach ironically may undermine this negative effect by accidentally, and wrongly from the point of view of a causation approach, creating overlaps between the causation and independence approaches.

190. The anecdotal evidence regarding high premiums in child abuse insurance and medical malpractice is well known. *E.g.*, Michelle Tsai, *Insurance for Sex Abuse*, SLATE, July 16, 2007, <http://www.slate.com/id/2170482> (“Partly because of rising insurance costs, a small number of churches are foregoing the coverage.”); Press Release, Am. Coll. of Obstetricians & Gynecologists, *Women’s Access to Health Care Hurt by Medical Liability Crisis* (Nov. 3, 2006), [http://www.acog.org/from\\_home/publications/press\\_releases/nr11-03-06.cfm](http://www.acog.org/from_home/publications/press_releases/nr11-03-06.cfm) (chronicling “increasing medical liability insurance premiums”).

191. RICHARD V. ERICSON, AARON DOYLE & DEAN BARRY, *INSURANCE AS GOVERNANCE* 3 (2003).

192. See KEETON ET AL., *supra* note 57.

193. See, *e.g.*, MAX H. BAZERMAN, *JUDGMENT IN MANAGERIAL DECISIONMAKING* 199-202 (6th ed. 2006) (arguing for the use of linear models and statistical techniques to debias judgment).

inquiry of the causation approach. Yet, the importance of intent creates a crucial difference that objectifies the armchair independence inquiry; the question is whether the parties contracted under the presumption that the losses at issue were independent.<sup>194</sup> This is a different inquiry than a “metaphysics of independence,” and it is one that is more tied to the particular parties, making it more objective and less subject to judicial discretion and manipulation. It is an inquiry, for example, that can draw on industry standards as a guiding force for any reasoning it must do to fill in the gaps of silence.<sup>195</sup> For example, the industry practice of providing flood insurance with higher premiums than the equivalent nonnatural disaster property insurance provides evidence as to the parties’ understanding of the dependence of losses from floods.

A third advantage of the independence approach also makes it more objective: independence analysis is *ex ante*, not *ex post*. The causation approach considers the actual causes of losses and assesses their connection. Courts necessarily are confronted with the details of the current fact pattern before them. The independence approach, however, considers the statistical, or potential, connection between losses. Courts need not consider the current fact pattern, including the cause of the losses, at all. Rather, they need only consider the connections contemplated by the statistics at the time of the contracting.<sup>196</sup> The inquiry is, in other words, generalized beyond the current situation. In fact, a court could make a determination as to coverage before the loss even accrued. In that sense, the inquiry is *ex ante*.<sup>197</sup> This difference places the adjudicator at a slightly more removed step from the sympathetic or unsympathetic victim in the case. Given the tendency in insurance to rule for

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194. There is a tension in the independence approach between the question of whether the losses are independent and whether the parties contracted as if they were independent. In most case, the parties will be correct and the answer is the same. In others, as discussed in this subsection, intent must govern because statistics are unavailable. In the few cases of conflict, intent should ultimately govern just as it does when statistics are unavailable. *See infra* Subsection IV.C.1.

195. The causation approach could be reformed to be intent-based, but even with that change it still faces the problem that independence is a better assumption for the intent of the parties because of its foundational role in insurance. Courts may or may not be more willing to start over than to continue to attempt to revive a dying doctrine. Regardless, in this sense the paper proposes two reforms: intent-based interpretation and an independence default as substitutes for abstraction-based interpretation and a mandatory causation approach.

196. This method, of course, may create a problem for new phenomena. *See infra* Subsection IV.C.1.

197. *See supra* note 195 (regarding intent-based reform of causation approach).

the sympathetic party,<sup>198</sup> including through *contra proferentem* rules of interpretation,<sup>199</sup> this distance is likely helpful. In other words, the abstract nature of the inquiry *ex ante* eliminates the possibility of conscious or unconscious prejudice to a particular party.<sup>200</sup>

*C. Problems with the Independence Approach*

In addition to the counterarguments, nuances, and clarifications discussed implicitly above, three counterarguments against this proposal deserve direct discussion: first, that the independence approach does not accommodate the possibility of unforeseen phenomena that create dependence among insured losses; second, that the independence approach should be mandatory; and third, that the effects on the court system due to reliance on empirical calculations create dependence on experts and litigation inequalities.

*1. Unforeseen Phenomena*

An independence approach inquires as to whether losses are correlated. New phenomena may create dependence, despite the fact that at the time of the contract neither party thought the losses were dependent. The problem, however, can arise under the causation approach, as new causes may surprise the parties.<sup>201</sup> And, this is a rare problem—even the terrorism of 9/11 was arguably foreseeable given the World Trade Center attack in the mid-1990s.<sup>202</sup> Regardless, there are a few options available to address it. First, the independence approach could rely on independence determinations regarding losses at the time of the contract. This option comports with intent, but lets losses lie where they fall. Second, the burden could always be placed either on the insurer or insured party, to provide an incentive for prediction by the more expert party. The problem with this option is that insurers and insured parties are often on different sides of the occurrence issue, and sometimes insurers are

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198. See *supra* text accompanying notes 107-109.

199. See Harrington & Danzon, *supra* note 107, at 293 (discussing *contra proferentem*).

200. While the focus on intent arguably eliminates this concern, the effect is certainly greater in an independence test than a causation test because the former is more economic and objective, and less moral and manipulable, than the latter.

201. Insofar as parties act based on the causation approach, surprises under that approach are just as jarring as under an independence approach.

202. See THE 9/11 COMMISSION REPORT 72 (2004) (remarking that “the [1993 World Trade Center] bombing signaled a new terrorist challenge”).

on both sides of a lawsuit—primary insurers sue secondary insurers and reinsurers sue other insurers.<sup>203</sup> Third, equity suggests that an insurance contract, like other contracts, should be rescinded on the grounds of mutual mistake of a material fact, that losses thought to be independent by both parties are in fact dependent.<sup>204</sup> This option, too, leaves losses where they fall, on the insured or victim, by eliminating the insurance payout. A combination of the first and third options appears to be the best approach: rely on the intent of the parties, but rescind the contract as applied to this particular loss if extreme mutual mistake occurred. This approach has the advantage of acknowledging the limitations on knowledge in a changing world,<sup>205</sup> although it leaves losses on the parties who suffer them. More importantly, this approach best comports with an intentionalist view of contracts.

## 2. *Opting Out: Contractual Independence*

It could also be argued that the independence approach to interpreting the number of occurrences should be a mandatory, and not just a default, rule. Mandatory rules are employed to increase efficiency, create fairness, or rectify other imperfections in contracts. But none of those rationales applies to a pure independence approach. In particular, it can be efficient for an insurer and insured party to determine a standard of contractual independence—a level of correlation they are willing to tolerate in coverage in exchange for a higher premium—if the risk aversion of the insured party is strong enough.<sup>206</sup> Dependent losses are not necessarily uninsurable, just more costly to insure. Flood insurance, for example, is available, at a price. This contractual independence could be specified by a statistical level of correlation as the legal independence section discusses or even, if the parties so choose, by a nonindependence-based measure, such as a causation approach. In other words, if the parties are willing to sacrifice the advantages of an independence approach—objectivity and the other points discussed above—it is not for the court to overrule that choice absent public policy considerations, such as harms

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203. This results from the fact that secondary insurers must cover losses the primary insurers need not cover because of per-occurrence limits and findings of fewer occurrences.

204. See, e.g., *Volpe v. Schlobohm*, 614 S.W.2d 615 (Tex. Civ. App. 1981) (rescinding a contract for mutual mistake); *Krezinski v. Hay*, 318 N.W.2d 26 (Wis. App. 1982) (same).

205. Victims funds for natural disasters also take this approach of bailout in extreme situations.

206. They may also stipulate that a certain dependence or independence exists for judicial convenience—that is, to avoid litigation costs.

to third parties or other externalities.<sup>207</sup> The independence approach, after all, is justified by a presumption of intent to contract in ways consistent with the background principle of independence. Fairness, furthermore, does not require a strict independence approach because insured parties do not have uniform preferences among independence, causation, or effects approaches, as the analysis above demonstrates. Nor does uniformity have any advantage in itself or in lowering court costs.<sup>208</sup>

### 3. *Burdens on the Court System*

The independence test changes the occurrence inquiry from a metaphysical analysis of cause to an empirical investigation of probabilities. But empirical focus, it can be argued, comes at a severe price: statistical fact-finding may increase the cost of litigation. Relatedly, critics may argue that statistical fact-finding places courts at the mercy of experts and, consequently, compounds litigation inequalities. While these objections do not lack merit, their force is mitigated by several factors. The first objection is countermanded by the fact that the necessary data is readily available, precedent generally limits repetitive litigation by generating principles akin to rules of thumb, and current theories also rely on experts. The second objection is undermined by the current reality of insurance litigation, which is already often expert dependent and involves sophisticated parties.

#### a. *Calculation Costs*

Critics may argue that the change from the causation theory to the independence model will increase the litigation costs already taxing the economics of insurance<sup>209</sup> by requiring the use of experts and statistical

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207. See RESTATEMENT (SECOND) OF CONTRACTS § 178 (1981) (describing the public policy exception to contract enforcement).

208. It is possible that a move to an independence approach might cause insurers to withdraw coverage. This development would probably be positive in the sense that it is based on insurer's ability to manipulate the causation approach to provide them with profits on insurance that is in fact not economically efficient. Any disadvantages of this development—presumably based on an important, though probably unrealizable, fear of more liability because of the change to a new standard—would disappear in the long run and could probably in the short run be mitigated in contract by aggregate limits, an increasing phenomenon.

209. *Owens-Ill., Inc. v. United Ins. Co.*, 650 A.2d 974, 993 (N.J. 1994) (“One thing is certain: The present system is inefficient. The largest transaction cost today is money being spent by insurance companies and industry making claims. [The cost is estimated] at about \$500

analysis.<sup>210</sup> These costs, it could further be argued, might outweigh any gains in efficiency from the application of a more theoretically appropriate interpretive rule.

This objection is undermined by the nature of the statistical inquiry, the court system, and the current mode of insurance litigation. First, the statistical inquiries in the independence approach rely on data that is already available.<sup>211</sup> Experts are not needed to produce data, but to analyze it. This type of cost is one that is different in kind from the cost required in other types of litigation for the development of empirical studies. To be sure, experts may “battle,” but this cost is a general problem in law,<sup>212</sup> and courts have evolved ways to address it, such as stipulations by parties, cross-examination,<sup>213</sup> judicial inquiries into qualifications,<sup>214</sup> and judicial oversight of the scientific quality of the offered evidence.<sup>215</sup>

Second, and more importantly, precedent on these types of statistical issues is likely to develop, just as it developed under prior theories.<sup>216</sup> In fact, the emergence of this type of reasoning in proximate causation analysis is one of its main advantages over the event theory, which requires multiple suits for each injured party.<sup>217</sup> Similarly for the independence approach, for the first court that determines whether instances of negligent supervision of an adult who commits child abuse are independent, there will be costs related to the first impression status of that question. But the second court that litigates the issue may be able to rely on the analysis of the first to the extent it is similar. In this

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million annually. These are the litigation costs between insured and insurers.”) (internal quotation marks omitted); Harrington & Danzon, *supra* note 107, at 293 (chronicling “[h]undreds of millions of dollars” spent on “liability insurance coverage litigation during the past two decades”).

210. See Yin, *supra* note 17, at 1258-60 (arguing that reducing duplicative litigation is an important goal of insurance law).

211. See *supra* Subsection IV.A.3.

212. Jennifer L. Mnookin, *Expert Evidence, Partisanship, and Epistemic Competence*, 73 BROOK. L. REV. 1009, 1009 (2008) (“The use of expert evidence in court has been criticized for a remarkably long time.”).

213. John Wigmore called cross-examination the “greatest legal engine ever invented for the discovery of truth.” 3 JOHN HENRY WIGMORE, A TREATISE ON THE ANGLO-AMERICAN SYSTEM OF EVIDENCE IN TRIALS AT COMMON LAW § 1367, at 27 (2d ed. 1923).

214. Mnookin, *supra* note 212, at 1016 (“[T]he main vehicle for such regulation as the courts wished to exercise was qualifications . . .”).

215. See, e.g., *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579 (1993).

216. See, e.g., sources cited *supra* note 65 (relying on other cases’ factual findings regarding shipments, food poisoning, and other liability-causing events).

217. See Yin, *supra* note 17, at 1258 (arguing that causation theory allows more joinder).

way, the issue of occurrences under the independence test will become both a doctrinal and empirical question as courts address various circumstances over time. These doctrinal rulings will become akin to rules of thumb on which later courts can rely. Just as insurance companies rely on the rule of thumb that war risks are correlated based on the history of insurance practice, so courts may come to rely on similar propositions tested through numerous court cases. In fact, the court in *Greene, Tweed & Co.* relied on precedent in its causation analysis regarding the factual question of the number of causes in asbestos products liability.<sup>218</sup> Such reliance both reduces costs and ensures some consistency.

This is not to say that the empirical inquiry will fall out of the system: just as in causation analysis both empirical reasoning—analyzing what is a cause is a “fact” question<sup>219</sup>—and doctrinal reasoning persisted, so the same should occur in the independence model. This result is in fact required by the Supreme Court’s acceptance of, yet skeptical attitude toward, offensive collateral estoppel.<sup>220</sup> The Court has noted that it could be used abusively and thus is not permitted “when the application of offensive estoppel would be unfair to a defendant.”<sup>221</sup> Yet, at the same time, courts cannot help but rely on related factual findings by other courts. Examples of this type of reliance have even occurred in the criminal context. One court determined that Sudden Infant Death Syndrome deaths were not necessarily independent.<sup>222</sup> A later court relied on this holding.<sup>223</sup> The same reliance has occurred regarding DNA evidence<sup>224</sup> and asbestos litigation.<sup>225</sup>

Finally, this objection regarding cost is undermined by the fact that courts already use experts to analyze business operations under the causation theory. Experts, especially on matters of initial impression, as discussed in the

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218. *Greene, Tweed & Co. v. Hartford Accident & Indem. Co.*, No. 03-cv-3637, 2006 WL 1050110, at \*6 (E.D. Pa. Apr. 21, 2006).

219. PROSSER, *supra* note 113, § 41, at 237 (“Causation is a fact. It is a matter of what has in fact occurred.”).

220. *See Parklane Hosiery Co. v. Shore*, 439 U.S. 322 (1979) (allowing the use of offensive collateral estoppel).

221. *Id.* at 331.

222. *Wilson v. State*, 803 A.2d 1034, 1045 (Md. 2002).

223. *Giddens v. State*, 812 A.2d 1075, 1080 (Md. Ct. Spec. App. 2002).

224. *People v. Soto*, 981 P.2d 958, 967 (Cal. 1999); *People v. Venegas*, 954 P.2d 525, 537 (Cal. 1998); *Commonwealth v. Rosier*, 685 N.E.2d 739, 744 (Mass. 1997); *Commonwealth v. Blasioli*, 713 A.2d 1117, 1124 (Pa. 1998).

225. *Liberty Mut. Ins. Co. v. Treedale, Inc.*, 418 F.3d 330, 337 (3d Cir. 2005) (relying on other asbestos cases’ number of occurrence determinations).

preceding paragraph, currently testify as to the decisionmaking that occurs within insured organizations.<sup>226</sup> They may testify, for example, as to how different supervisors were negligent in their supervision, as in *Elizabeth N.*, how different doctors committed malpractice independently, as in *Helme*, or how different factories produced different parts of defective products, as in *Pincoffs*. There is no evidence that changing the topic of expertise will raise litigation costs more than marginally, especially given the availability of the data.

*b. Dependence on Experts*

Relatedly, critics of the independence model may object that it will make courts reliant on experts—a development that is arguably both bad in itself and problematic because it will further litigation inequalities. This objection is countermanded by the current reality of insurance litigation, which is already expert dependent. Experts testify as to the amount of loss, the type of loss, the foreseeability of loss, the possibility of loss mitigation, and, under the causation theory, the cause of loss.<sup>227</sup> Substituting an independence expert for a causation expert does little to change the tone of insurance litigation.<sup>228</sup>

Insurance litigation, furthermore, is often between sophisticated parties, not the insurance company and the average citizen.<sup>229</sup> In large disputes, primary insurers often battle secondary insurers over issues that affect whether the secondary insurance is tapped or large companies battle primary insurers over whether their employees are covered by general insurance policies.<sup>230</sup> To be sure, there are disputes between insurance companies and average citizens, but these occur throughout the law and courts have developed ways to address

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226. See, e.g., cases cited *supra* note 79 (detailing factual findings by courts as to the workings of business).

227. The World Trade Center cases include testimony on all of these points. See, e.g., *World Trade Ctr. Props., L.L.C. v. Hartford Fire Ins. Co.*, 345 F.3d 154, 185 (2d Cir. 2003).

228. Some may argue that increased use of experts is a positive development in areas of law that involve economic efficiency concerns.

229. E.g., *Greene, Tweed & Co. v. Hartford Accident & Indem. Co.*, Civil Action No. 03-3637, 2006 WL 1050110, at \*8 (E.D. Pa. Apr. 21, 2006) (noting that the plaintiff, though the insured party, was a sophisticated commercial entity). Even when a case names a private citizen, often an insurer is representing that individual against a different insurer. E.g., *Mich. Chem. Corp. v. Am. Home Assurance Co.*, 728 F.2d 374 (6th Cir. 1984) (involving a reinsurer litigating on the side of insured).

230. E.g., *World Trade Ctr.*, 345 F.3d at 159 (discussing how numerous insurers battled each other on a variety of insurance issues); *Mich. Chem. Corp.*, 728 F.2d at 374 (involving several insurers battling Michigan Chemical and another insurer).

any inequalities, including contingent fee arrangements,<sup>231</sup> presumptions against contract drafters,<sup>232</sup> and case management strategies.<sup>233</sup> There is no indication that these methods are less effective in insurance litigation at reducing the effects of inequality.

## V. THE IMPACT OF AN INDEPENDENCE TEST

The previous Part's discussion confirms that the independence proposal is feasible. This Part will illustrate this point by first working through two case examples. It will then employ additional examples to demonstrate the impact of the independence test in changing case outcomes and improving judicial reasoning and analysis.

### A. Examples of Independence Analysis

The cases of *Elizabeth N.*, involving child abuse, and *Medical Protective*, involving medical malpractice, provide helpful examples of how an independence approach would function in practice, including the types of data required to calculate independence. These examples are particularly instructive because they involve two very different types of arenas—medicine, which appears quantifiable as a highly scientific enterprise, and child abuse, which does not.

In the *Elizabeth N.* case discussed above, the court considered whether negligence in the supervision an adult who abused children constituted one or multiple occurrences.<sup>234</sup> To determine whether these events are independent, a court must first define the loss by progressing through the steps involving actual and presumed intent outlined in Subsection IV.A.2. Explicit actual intent is not available, as the policy insured for “all bodily injury and property damage.”<sup>235</sup> Actual intent through bargained-for rates is unavailable from the court's opinion, but may be obtainable. For that metric, the court would analyze the insurance company's breakdown of homeowner's rates—or market

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231. The class action device is also useful.

232. See *supra* note 57 and accompanying text (discussing *contra proferentem*).

233. The Federal Rules of Civil Procedure give district judges discretion to manage cases with a heavy hand, if necessary. See FED. R. CIV. P. 16(a) (“In any action, the court may order the attorneys and any unrepresented parties to appear for one or more pretrial conferences for such purposes as . . . improving the quality of the trial . . .”).

234. *State Farm Fire & Cas. Co. v. Elizabeth N.*, 12 Cal. Rptr. 2d 327, 327 (Ct. App. 1992).

235. *Id.* at 329.

rates for standard homeowner's insurance or daycare insurance—and the rate paid by the insured in the case to see if it accounted for the risk of child abuse loss. This investigation is likely to be fruitful because of the sophistication of insurers with respect to child abuse insurance. Since the rise of child abuse lawsuits in the 1980s,<sup>236</sup> insurers have increasingly charged specifically for child abuse coverage. One hundred thousand dollars in coverage, for example, costs approximately \$100 per year.<sup>237</sup> Thus, investigation of the rate charged to the insured in this case is likely to yield a conclusion about whether the insured loss should be defined as an instance of child abuse injury. Unfortunately, the record in the case fails to indicate such information, although the rate is of course known by both the insured and the insurer.

Presumed intent is more immediately available. Industry standards, for example, indicate that a homeowner in the childcare business is starkly confronted with the risk of child abuse losses. Training programs to prevent such abuse abound, including programs run by insurance companies themselves.<sup>238</sup> While the insured, as a homeowner, did not purchase insurance solely for the daycare business in this case,<sup>239</sup> the industry practice in home-operated daycare centers strongly indicates that child abuse loss is well recognized as an atomized unit. The intent of the parties can be presumed from this industry practice. Common sense confirms this conclusion: it would be rather striking to focus on the insured instead of the abused individual when defining a loss in a context in which media focus on the victims of child abuse and the resources for victims is so strong.<sup>240</sup> In other words, it is reasonable to presume that, in the context of societal focus on victims of child abuse, the parties similarly focused on specific abuse losses in their insurance arrangement. Finally, other areas of the law—notably the victim's rights movements<sup>241</sup> and the award of restitution in many criminal cases<sup>242</sup>—lend

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236. Lisa Jones & David Finkelhor, *The Decline in Child Sexual Abuse Cases*, JUVENILE JUSTICE BULL. (U.S. Dep't of Justice, Washington, D.C.), Jan. 2001, at 1 (contrasting a decline in the 1990s with the rise in 1980s); Tsai, *supra* note 190.

237. Tsai, *supra* note 190.

238. *E.g.*, Insurance Industry Charitable Foundation, News – Child Abuse Prevention Program Educational Forum (Apr. 10, 2008), <http://www.iicf.org/news/newsdetails.php?id=91> (mentioning the Insurance Industry Charitable Foundation's "Child Abuse Prevention Program").

239. *See Elizabeth N.*, 12 Cal. Rptr. 2d at 328.

240. The U.S. government, for example, has compiled a list of resources that demonstrates the attention given, properly, to victims. *E.g.*, U.S. Department of Justice, Office for Victims of Crime, <http://www.ojp.usdoj.gov/ovc> (last visited May 4, 2009).

241. *E.g.*, Douglas Evan Beloof, *The Third Model of Criminal Process: The Victim Participation Model*, 2 UTAH L. REV. 289 (1999).

further credence to defining the loss as child abuse. Taken together, these actual and presumed intent inquiries provide strong evidence that the loss should be defined as child abuse injury.

Next, the court must inquire as to two probabilities. First, it must determine the probability of the two instances of child abuse injury,  $P(A)$  and  $P(B)$ .<sup>243</sup> Since the instances of injury were substantially similar in this case, only one probability needs to be found. This probability, of course, is the very one upon which the insurer based the premium and the insured determined whether the premium was appropriately priced.<sup>244</sup> While the insurer probably has more accurate data that is discernable through discovery<sup>245</sup> or is perhaps semi-public,<sup>246</sup> well-grounded calculations can be made based on widely available data. Federal government surveys indicate that the rate of child abuse injuries in 1999, about five years from the date of this case, was approximately 11.8 of 1000 children, or 1.18%.<sup>247</sup>

The court must also find the probability that multiple instances of child abuse injury will occur for a particular party.<sup>248</sup> Here, the court should look to data on repeat violations. Insurers will have such data pursuant to their estimations of overall liability per insured entity. Government organizations, particularly crime agencies, policymakers, and scholars will likely also have such data as a part of their operations.<sup>249</sup> The same federal government survey

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242. 18 U.S.C. § 2259 (2000).

243. The reference class would change if the insurer adjusted the premium because of the daycare aspect of the insured.

244. As discussed above, in the child abuse context the rate is likely to be distinguishable in the premium.

245. Rose French, *Report: Protestant Church Insurers Handle 260 Sex Abuse Cases a Year*, INS. J., June 18, 2007, <http://www.insurancejournal.com/news/national/2007/06/18/80877.htm> (discussing the information insurers have on child abuse lawsuits and payouts).

246. See *supra* Part IV (discussing insurer trade associations' aggregation of data).

247. U.S. DEP'T OF HEALTH & HUMAN SERVS., CHILD MALTREATMENT REPORT 1999 § 2.1 (1999), available at <http://www.acf.hhs.gov/programs/cb/pubs/cm99/cpt2.htm>. Other similar surveys put forth similar figures. NAT'L COMMITTEE FOR PREVENTION OF CHILD ABUSE, CHILD ABUSE FACTS & STATISTICS (1998), available at <http://www.dayofthechild.org/dc98/Library/pdf/991204.pdf> (listing a 1.5% rate). It is important to note that disputes over statistics are acceptable, just as any other dispute among experts is a part of contested litigation. The more important point is that such statistics exist.

248. This probability is necessary to determine the intersection of the losses.

249. The U.S. Department of Health and Human Services, for example, collects resources, data, and information. See generally Child Welfare Information Gateway, <http://www.childwelfare.gov> (last visited May 4, 2009) (collecting "[r]esources about child maltreatment, including definitions, signs and symptoms, statistics and prevalence, types of

indicates that 7.5% of victims suffer one or more subsequent incidents.<sup>250</sup> Thus, 0.0885% of children are victims of multiple abuses. This number differs from the square of the general child abuse rate of 1.18%, which is 0.0139%. Thus, the likelihood that a particular homeowner will experience multiple child abuse losses to the same child is highly dependent.<sup>251</sup> Expert opinion confirms this conclusion. Abused children, for example, are 96% more likely to experience abuse, recurring abuse in their case, than nonabused children.<sup>252</sup> Based on this calculation, therefore, the court likely reached the right result that multiple instances of child abuse constituted one occurrence.<sup>253</sup>

In *Medical Protective*,<sup>254</sup> the court considered whether a medical malpractice episode in which a patient suffered blindness after a pattern of treatment, including numerous visits, examinations, prescriptions, and other decisions by one physician constituted one or multiple occurrences. The court must first define the loss by progressing through the steps involving actual or presumed intent. In this case, actual intent as derived from explicit statement is unavailable from the court record, although the insurance contract of course exists. Actual intent as derived from bargained-for rates, however, is likely to be instructive. In fact, the rates likely need not be closely examined due to the nature of the contract. In this case, Medical Protective insured a pediatrician. Even if the policy was not explicitly a contract for medical malpractice insurance, the attention to medical malpractice makes it implausible for the rates of an insurance company insuring a doctor not to include a medical malpractice factor. Industry standards confirm this point: doctors are acutely aware of medical malpractice costs, as the current medical malpractice crisis reinforces.<sup>255</sup> Appeal to common sense reasoning and other areas of law is unnecessary. Rather, the intent evident in the nature of the contract shows that the loss should be defined as medical malpractice injury.

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child abuse and neglect, risk and protective factors, the impact on individuals and society, and child fatalities"). Recidivism rates may also be useful in this inquiry regarding multiple children.

250. U.S. DEP'T OF HEALTH & HUMAN SERVS., *supra* note 247, § 2.1.

251. If the square of the probability of one child abuse injury differs from the probability of multiple child abuse injuries, then the injuries are dependent.

252. U.S. DEP'T OF HEALTH & HUMAN SERVS., CHILD MALTREATMENT REPORT 2006 ch. 3 (2006), available at <http://www.acf.hhs.gov/programs/cb/pubs/cmo6/cmo6.pdf>.

253. As indicated in the discussion of incentives, this finding is neither pro-victim, pro-insured, or pro-insurer because of the diversity of interactions among the amounts of losses, deductibles, and limits.

254. 575 F. Supp. 901 (N.D. Ill. 1983).

255. Michelle M. Mello, David M. Studert & Troyen A. Brennan, *The New Medical Malpractice Crisis*, 348 NEW ENG. J. MED. 2281 (2003).

Next in the independence approach, the court must inquire as to several probabilities for correlation analysis. First, it must determine the probability of medical malpractice loss in the individual treatments, such as a prescription or an examination. Medical practitioners and insurers use this type of data when deciding whether to buy and sell insurance at a certain price.<sup>256</sup> Numerous studies conclude that medical malpractice occurs at approximately a rate of 1% of all patients.<sup>257</sup> Second, the court must determine the probability of multiple medical malpractice losses for one individual in order to compare the intersection of the losses<sup>258</sup> to the square of the probability of one malpractice loss. The federal government reports that 11,769 malpractice reports are made annually regarding medical practitioners.<sup>259</sup> Assuming that the rate of multiple reports per practitioner and the percentages of practitioners who are physicians have been consistent over time, there would have to be approximately 45,000 doctors in the United States for malpractice injuries to be independent,<sup>260</sup> an

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256. John O'Brien, *SC Won't Hear Hospital's Appeal in Self-Insured Doctor's Case*, LEGALNEWSLINE.COM, Mar. 1, 2007, <http://www.legalnewsline.com/news/191203-sc-wont-hear-hospitals-appeal-in-self-insured-doctors-case> (chronicling practitioner's decision to self-insure); *Doctor's Medical Malpractice Insurance Plan*, [http://www.insuranceclaimsconsult.com/medical\\_mal\\_practice\\_insurance.htm](http://www.insuranceclaimsconsult.com/medical_mal_practice_insurance.htm) (last visited May 4, 2009) (instructing doctors how to decide whether to self-insure).

257. Medical malpractice rates are oft-studied. Studies in the 1970s, 1980s, and 1990s confirm an approximately one in one hundred rate. See TOM BAKER, *THE MEDICAL MALPRACTICE MYTH* 24-36 (2005) (summarizing landmark studies at Harvard and other leading institutions). For this inquiry, this general rate is sufficiently specific because the loss is medical malpractice injury generally.

258. If statistics are not available, a court may rely on testimony from hospitals that employ doctors, medical review boards that evaluate doctors and hospitals, insurance companies that insure doctors, and policymakers who design malpractice systems.

259. U.S. DEP'T OF HEALTH & HUMAN SERVS., *NATIONAL PRACTITIONER DATA BANK 2006 ANNUAL REPORT* 72 (2006).

260. *Id.* at 41, 72. If medical malpractice injuries are independent in 2006, then:

$P(\text{malpractice injury for a physician in 2006})^2 = P(\text{two malpractice injuries for a physician in 2006})$ .

Treating the left side of the equation first:

$P(\text{malpractice injury for a physician in 2006})^2 = (\text{number of malpractice injuries from physicians in 2006} / \text{number of physicians in 2006})^2 = ((\text{number of malpractice injuries from practitioners in 2006} * \text{percentage of malpractice injuries generally from physicians}) / \text{number of physicians in 2006})^2 = ((\text{number of malpractice injuries from practitioners in 2006}) * (\text{number of malpractice injuries from physicians 1990-2006} / \text{number of malpractice injuries from practitioners 1990-2006})) / \text{number of physicians in 2006})^2 = ((11,769 * (164,877 / 237,835)) / X)^2 = (8151.82 / X)^2 =$

Treating the right side of the equation now:

order of magnitude lower than the approximate number of physicians practicing in the United States.<sup>261</sup> In other words, the court likely decided the number of occurrences correctly because malpractice incidents for individual physicians are dependent. Expert opinion that a few doctors account for a disproportionate amount of malpractice liability confirms this statistical reasoning.<sup>262</sup>

### *B. Differences in Case Outcomes Under the Independence Test*

Contrary to any suggestion from the preceding analysis, not all cases come out the same way under an independence approach and a causation approach, a welcome deviation given the coincidence that courts in both the cases in the previous Subsection ruled for the insured with questionable reasoning.<sup>263</sup> Of course, even if the results are the same, the independence approach has several advantages, as described in Section IV.B. But, as a general matter, the results differ when compared to an independence approach: the liability event theory at times yields too many causes and thus too many occurrences because it arbitrarily focuses on liability triggers, and liabilities are often dependent, while the proximate cause theory at times yields too few causes and thus too few occurrences because it arbitrarily focuses on one of the causes and numerous independent causes may be present.<sup>264</sup>

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$P(\text{two malpractice injuries for a physician in 2006}) = \text{number of two malpractice injuries for physicians} / \text{number of physicians} = (\text{rate of multiple malpractice injuries for physicians} * \text{number of malpractice injuries for practitioners} * \text{percentage of malpractice injuries generally from physicians}) / X = (((\text{number of malpractice injuries for physicians in 1990-2006} - \text{number of malpractice injuries for physicians with only one injury in 1990-2006}) / \text{number of malpractice injuries for physicians in 2006}) * \text{number of malpractice injuries for practitioners} * (\text{number of malpractice injuries from physicians 1990-2006} / \text{number of malpractice injuries from practitioners 1990-2006})) / X = (((164,877 - 134,663) / 164,877) * 11,759 * (164,877 / 237,835)) / X = 1493.84 / X.$

Thus, the two sides of the equations are the same only if  $(8151.82/X)^2 = 1493.84/X$ , or if  $X = 8151.82^2 / 1493.84 = 44,484.13$  physicians.

261. U.S. GOV'T ACCOUNTABILITY OFFICE, PHYSICIAN WORKFORCE: PHYSICIAN SUPPLY INCREASED IN METROPOLITAN AND NONMETROPOLITAN AREAS BUT GEOGRAPHIC DIFFERENCES PERSISTED 7 (2003) (reporting 681,000 physicians in 2001); U.S. GOV'T ACCOUNTABILITY OFFICE, PRIMARY CARE PROFESSIONALS: RECENT SUPPLY TRENDS, PROJECTIONS, AND VALUATION OF SERVICES 8 (2008) (reporting approximately 800,000 physicians in 2005).
262. *E.g.*, FRANK A. SLOAN & LINDSEY M. CHEPKE, MEDICAL MALPRACTICE 191 (2008) (noting that a few physicians account for much of the malpractice payments).
263. See Section III.A (criticizing courts for outcome-based judging).
264. Outcome-based judging, as suggested above, may also play a role.

Taking the liability event view first, cases that find multiple occurrences when there are multiple injured parties are often inconsistent with an independence approach. In *Koikos*, for example, the court found that multiple gunshots constituted multiple instances of negligent failure to provide adequate security and, thus, multiple occurrences.<sup>265</sup> Under an independence approach, the first inquiry for the court is the definition of the loss. Here, as in the medical malpractice case discussed above, *Medical Protective*, the loss definition is straightforward. The policy covers “bodily injury”<sup>266</sup> and two such injuries occurred for two different victims. The loss, therefore, is the injury taking place on the property. Resort to actual intent as derived from bargained-for rates or analysis of presumed intent through industry practice and other considerations are unnecessary. At this stage, it should be noted that the analysis parallels the *Koikos* courts’ reasoning. But the court’s method then diverged because of its use of the causation approach. The independence test, on the other hand, proceeds a step in a different direction to analyze statistical independence. It is this stage that changes the ultimate result.

At this stage, the court must determine whether the losses are independent. While the insurer probably has more accurate data that is discernable or discoverable, publicly available information provides strong evidence for dependence, even without statistical analysis. Studies repeatedly demonstrate that criminal activity is not spread evenly through property areas but is rather concentrated in certain areas.<sup>267</sup> Entire police strategies are based on such understandings.<sup>268</sup> In fact, an entire branch of sociology has tasked itself with

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265. *Koikos v. Travelers Ins. Co.*, 849 So. 2d 263, 264 (Fla. 2003).

266. *Id.* at 271.

267. Scott Freeman, Jeremy Grogger & Jon Sonstelie, *The Spatial Concentration of Crime*, 40 J. URBAN ECON. 216, 216 (1996) (“Every American city has unsafe neighborhoods where the chances of being robbed are dramatically higher than in the rest of the city. While this spatial concentration of crime is a fact of life, it seems at odds with common notions of resource allocation.”); Jack L. Nasar & Bonnie Fisher, ‘Hot Spots’ of Fear and Crime: A Multi-Method Investigation, 13 J. ENVTL. PSYCH. 187, 187 (1993) (“Crime and fear tend to concentrate in certain areas and situations . . . called ‘hot spots.’”); JOHN E. ECK, ET AL., MAPPING CRIME: UNDERSTANDING HOT SPOTS 1 (2005), available at <http://www.ncjrs.gov/pdffiles1/nij/209393.pdf> (“Crime is not spread evenly across maps. It clumps in some areas and is absent in others. People use this knowledge in their daily activities.”).

268. JOHN E. ECK, DEP’T OF JUSTICE, ASSESSING RESPONSES TO PROBLEMS: AN INTRODUCTORY GUIDE FOR POLICE PROBLEM-SOLVERS 34-37 (2004) (discussing the importance of statistics in studying displacement of crime to other areas); ECK ET AL., *supra* note 267, at iii (“Much of crime mapping is devoted to detecting high-crime-density areas known as hot spots. Hot spot analysis helps police identify high-crime areas, types of crime being committed, and the best way to respond.”).

explaining this phenomenon.<sup>269</sup> The evidence, therefore, suggests that criminal injuries on a property are dependent. The liability event theory, as a result, contravenes the independence assumption of insurance by finding two causes and thus two occurrences.<sup>270</sup>

Similarly, cases decided under the proximate cause view conflict with an independence approach, particularly when there are numerous incidents attributed to the insured. For example, in *Greene, Tweed & Co.* discussed above, the court found that the dissemination of 105 different asbestos products to over 60,000 injured claimants constituted one occurrence.<sup>271</sup> This ruling limits the coverage of the insurers to the single occurrence limit. Under an independence approach, the result would likely differ. According to that framework, the court first defines the loss. Here, for the same reason as in the medical malpractice case above—insurance is purchased for products liability—the loss is products-related injury.<sup>272</sup> The next step in the independence approach is to test the independence of such losses. Without turning this Note into an investigation of asbestos injury statistics, a few remarks can be made that point toward a different result than that reached by the court. First of all, losses from products are likely more correlated when arising from the same product than from different products. The correlation among losses for a particular product is likely high: knowledge that use of Product A creates a product liability loss is indicative of a higher probability of another loss regarding Product A. After all, products liability injury turns on product defects likely to be shared by products of the same model. This correlation, of course, is why products liability law revolves around class actions. But, the correlation for losses among a loss from Product A and a loss from Product B is less clear. Many product manufacturers make more than one product, but not all such manufacturers experience products-related injury on more than one product. This analysis indicates, at the very least, that there is a difference in

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269. Anthony E. Bottoms & Paul Wiles, *Environmental Criminology*, in 2 CRIME: CRITICAL CONCEPTS IN SOCIOLOGY 326, 327 (Philip Bean ed., 2003) (“Traditionally, the two central concerns of environmental criminology have been *explaining the spatial distribution of offences* and *explaining the spatial distribution of offenders*.”).

270. It is important to note the advantage this reasoning has over the dissent’s hypothetical regarding the machine gun criminal discussed above. See *supra* Part III. While there is no principled way to decide whether the majority or the dissent rightly assessed the number of causes in that case, the empirical reasoning of the independence approach provides an objective method of analysis and, epistemological problems aside, a correct answer.

271. *Greene, Tweed & Co. v. Hartford Accident & Indem. Co.*, No. 03-cv-3637, 2006 WL 1050110, at \*6 (E.D. Pa. Apr. 21, 2006).

272. See *supra* Section V.A.

correlation between the various losses of the 60,000 injured parties in this case and that at least some of the losses from the 105 products may be independent.

There is another more fundamental reason why the independence approach likely changes the result in this case, one related to the concept of legal independence and the expectations of the parties. Legal independence allows parties to adapt a standard other than perfect independence. It is based on the recognition that the intent of the parties is the touchstone of insurance contract interpretation. Here, the evidence indicates that the parties contracted as if the losses were independent. In this case, a one occurrence finding leaves Greene, Tweed & Co. with total insurance of \$1 million for products liability for each of nine of thirteen years in dispute in the litigation. The company, however, manufactured over 105 products used in 33 states and 15 foreign countries. If all of those products were treated as one for products liability purposes, as the courts' ruling implied, Greene, Tweed & Co. would be severely underinsured, only insuring for at most ten thousand dollars for each product.

The insurance contract itself confirms the oddity of this result. In products liability, it is industry practice to, at times, rely on a "batch clause" to roll separate personal injury claims into a single occurrence.<sup>273</sup> Such clauses provide that "with respect to products liability, all damages arising out of one lot of goods or products prepared or acquired by the named insured should be considered as arising out of one occurrence or accident."<sup>274</sup> The purpose of such clauses is to "reduce the number of occurrences whenever the same product . . . causes multiple bodily injuries or property damage."<sup>275</sup> The contract in this case, however, did not include such clauses. The omission of language to roll injuries from the same product together is suggestive of the parties' intent to take the more extreme step of rolling injuries from separate products to together. Thus, at the very least, the evidence of intent suggests that the parties contracted for a policy that treats products liability of separate products as separate occurrences. In other words, both statistical reasoning, even if without actual statistics, and intent-based reasoning under the legal independence framework indicate that some of the losses in this case were—in fact or in the parties' view—independent. The one occurrence finding of the court, then, is likely incorrect under an independence approach.

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273. OSTRAGER & NEWMAN, *supra* note 20, § 9.02[c], at 47.

274. *Id.*

275. *Id.* (internal citation omitted).

C. *A Better Justification for Some Case Outcomes*

The independence approach also explains why the cases described above involving World Trade Center terrorism, discrimination, and products liability that stretch causation beyond its normal concept may in fact be correctly decided. Judges in these cases may be making plausible judgments as to statistical correlation. Their error, then, would be in omitting their actual reasoning, not their resolution of the case. This congruence is most likely to occur when the causation and independence approaches overlap, that is, when empirical reality conforms to intuitive causation metaphysics. Unfortunately, this mode of analysis leads to unfavorable results as well. As Part III demonstrated, the causation approach leads to inconsistent rulings and, potentially, outcome-based judging.

Most notably, the WTC case appears correctly decided on an independence view, but not for the reasons the causation theory proposes.<sup>276</sup> Instead of asking whether the attack on the Twin Towers constituted one cause or two, the court should have inquired as to the statistical probabilities involving losses of buildings. Under an independence approach, courts first define the loss. Here, each building was insured, so the loss is the destruction of each building. The next question for investigation should have been whether the first insured event, the loss of the first building, was independent of the second building loss. Historical evidence regarding large-scale building losses, and not analysis of the particular plans of a terrorist group, is most relevant.<sup>277</sup> All the available evidence—direct historical and indirect industry-based—confirms the dependence of the events: Historically, it is clear that large-scale losses of buildings are not independent. War and natural disasters do not target selectively. For example, Hurricane Katrina destroyed entire neighborhoods with flooding damage.<sup>278</sup> World War II's fire bombing of Dresden, similarly, devastated large portions of the city. Earthquakes are also particularly broad in their damage. The famous 1994 Northridge earthquake in Los Angeles caused

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276. The discussion here refers to the issue of the number of occurrences in each type of contract, not the type of contract applicable to each insurer.

277. Some commentators believe that terrorism is uninsurable because of the lack of historical evidence. See Boardman, *supra* note 151, at 815 (arguing that the historical evidence regarding terrorism is too limited for analysis). This reasoning, however, overemphasizes the experience of the United States: terrorism has been occurring throughout world history, particularly during the twentieth century, in Western Europe, Eastern Europe, Latin America, Southeast Asia, Africa, and the Middle East.

278. For an interactive map of the flooding from Hurricane Katrina, see Times-Picayune, Flash Flood, <http://www.nola.com/katrina/graphics/flashflood.swf> (last visited May 4, 2009).

both the Northridge Mountain apartment complex and the nearby Northridge Fashion Center to collapse. Twenty billion dollars in damages, fifty-seven deaths, and nine thousand injuries resulted.<sup>279</sup> As the U.S. government reports, 1,600 buildings were “red-tagged” as too damaged to enter and 7,300 were restricted to limited entry as “yellow-tagged.”<sup>280</sup>

The insurance industry’s practice also provides indirect evidence of this dependency. The traditional exclusions for war and natural disaster<sup>281</sup> imply that destruction of entire buildings is highly correlated. At the very least, it indicates belief that such losses are correlated, a relevant consideration for legal independence analysis. Overall, the independence approach asks better questions—historical, statistical, and intent-based—than the courts’ analysis regarding terrorist plans.<sup>282</sup>

Other areas of law are similarly susceptible to better justification under independence analysis. In discrimination cases,<sup>283</sup> for example, the causation approach classifies the losses as stemming from one cause, and thus constituting one occurrence, in strained fashion, as Section III.B indicates. The independence approach confirms this result, but without straining the concept of proximate causation. Under the independence approach, courts first define the loss: here, injuries from discrimination. The next step is to analyze the dependence of such losses. The evidence suggests that the individual acts of discrimination, for which one is insured, are dependent: knowing that one loss occurred hints at whether another occurred. The evidence for this claim, even without statistics, is twofold. Psychological and sociological research suggests that racism is embedded in and fostered by cultures.<sup>284</sup> Social psychology studies demonstrate that groups and culture are sources of norms, reinforce those norms, and encourage actions on those norms. For example, in the classic

279. U.S. GEOLOGICAL SURVEY FOR THE FED. EMERGENCY MGMT. AGENCY, USGS RESPONSE TO AN URBAN EARTHQUAKE NORTHRIDGE '94 (1996), available at <http://pubs.usgs.gov/of/1996/ofr-96-0263/introduc.htm#impacts>.

280. *Id.*

281. See Boardman, *supra* note 151, at 821 (“War is perhaps the ultimate correlated clash event.”); see also Diamond Shamrock Chems. Co. v. Aetna Cas. & Sur. Co., 609 A.2d 440, 472 (N.J. Super. Ct. App. Div. 1992) (“It is difficult to devise an actuarial guide for properly determining the amount of [war] premiums.”).

282. This example highlights the tension between an intent-based approach and an ex post independence approach, as before September 11, policies were less likely to encompass loss based on terrorism of the scale of the WTC attacks, as opposed to similar losses from natural disasters.

283. See sources cited *supra* note 10.

284. For a discussion of a prominent example, see Eugene McLaughlin & Karim Murji, *After the Stephen Lawrence Report*, 19 CRITICAL SOC. POL’Y 371 (1999).

study of Bennington College's influence on political beliefs, Theodore Newcomb found that students moved further from their parents' attitudes and closer to the attitudes of the college community over time: 66% of parents favored the Republican presidential candidate, while 62% of freshmen, 43% of sophomores, and only 15% of juniors and seniors favored the Republican.<sup>285</sup> There are also significant momentum effects to group behavior: groups that lean toward a certain perspective are more likely to become extreme in that perspective through interaction with each other.<sup>286</sup> This research indicates that it is highly likely that cultures of racism are at play in many discrimination cases and that, consequently, discrimination losses are likely to be correlated.

More abstractly, American experience with the civil rights movement and antidiscrimination efforts in the states and localities demonstrates the role of repeat players. The structural injunction as a novel type of remedy arose for this very reason in the desegregation context. The certification of numerous class actions confirms the similarity, and thus dependence, among cases. With this evidence, it is hard to contest the conclusion that one incident of discrimination intimates another: losses are dependent. It makes sense, therefore, to treat all of them as one occurrence despite the presence of contributing causes in each individual case of discrimination. Thus, while these decisions strain the concept of proximate cause by undermining its traditional connection to responsibility, they comport with an independence approach – even that done without the necessary statistical analysis.

This subsection has not conclusively proved the appropriateness of certain outcomes under the independence approach. Rather, it has demonstrated by example the superiority of an independence approach in offering rationales for case outcomes. The proximate cause approach strains the proximate cause concept, undermining the coherence of the decisions under it, as discussed above. The independence approach, however, avoids this problem while validating some of the judges' intuitive conclusions. This feature is valuable as long as common sense is accorded some deference as a metric for evaluating theories.

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285. THEODORE M. NEWCOMB, *PERSONALITY AND SOCIAL CHANGE* (1943).

286. SOLOMON E. ASCH, *SOCIAL PSYCHOLOGY* (1952); Solomon E. Asch, *Effects of Group Pressure Upon Modification and Distortion of Judgments*, in *READINGS IN SOCIAL PSYCHOLOGY* (E.E. Macoby et al., 3d ed. 1958); Solomon E. Asch, *Opinions and Social Pressures*, 193 *SCI. AM.* 31 (1955).

## CONCLUSION

This Note made several arguments regarding the problem of determining the number of occurrences. First, it acknowledged that the number of occurrences issue does not lend itself to easy pro-insured or pro-insurer solutions. Second, it argued that courts apply multiple theories and that these theories are applied inconsistently, are often internally inconsistent, and strain the traditional concept of causation on which they claim to rest. Third, it argued that the dominant theory—a causation approach—conflicts with a crucial assumption of insurance, that the insurable events are statistically independent. Finally, it proposed a new approach based on the concept of independence as more theoretically satisfying and consistent.

Because the independence proposal is novel and the causation approach is entrenched, numerous questions remain worthy of investigation before an industry conservative by nature will embrace an interpretive change. For example, under an independence scheme, would parties specify certain unique levels of contractual independence or would they seek a uniform rule? Would additional data compilers emerge as sources? Would a shift to the independence approach increase or decrease the coverage offered by insurers? These questions and others deserve further investigation and perhaps empirical study.

This Note's argument for replacing causation approaches with an independence approach presumes a certain view of the insurance system and the courts. It presumes that courts should enforce the bargain the parties strike and that the parties strike an economic bargain based on economic reasoning. These are not uncontested presumptions. Some commentators appear to believe that the parties do not reason economically or that courts should use insurance adjudication to further societal goals, such as risk spreading or distributional justice.<sup>287</sup> These are worthy goals, although their furtherance through the insurance system may be less attractive. It is not this Note's goal, however, to resolve the purpose of the insurance system and its adjudication in the courts. Rather, this Note tries to point out that an economic view of insurance and its adjudication requires a more quantitative, and less subjective, approach to solving the legal problems that arise in insurance disputes. It makes more sense to analyze statistics than to do metaphysics to define occurrence when courts are trying to play an economic, as opposed to a social, role. Instead of trying to ascertain philosophically whether the tragedy of

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287. See, e.g., BAKER, *supra* note 20, at 4-19.

September 11 arose from one cause or multiple causes, for example, courts should ask whether the losses arose from statistically correlated acts.