

THE BUTTERFLY EFFECT IN INTERPRETING INSURANCE POLICIES

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I

INTRODUCTION

In resolving contract disputes, one might think a court's interpretation of the contract at issue would impact only the parties in the case. In the vast majority of contract cases today, however, that is not true because more than ninety-nine percent of the contracts entered today are standard form contracts.¹ When a court interprets a standard form contract, the court's interpretation of the language impacts all of the entities who are using, or will be using, the contractual language at issue, not just the parties in the case.² The court's interpretation also impacts how other courts will interpret the same language even if the courts are in different jurisdictions. Because the drafters of standardized contract language often understand the far-reaching impact of courts' interpretations, they respond to the courts' interpretations of their language when drafting or redrafting standardized contracts. Courts' interpretations of standardized contract language also impact the behavior of repeat users of such language in seeking or avoiding judicial interpretation of the contract language. These ripple effects of courts' interpretations of standardized contract language are commonly referred to as the "butterfly effect."³

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1. See, e.g., W. David Slawson, *Standard Form Contracts and Democratic Control of Lawmaking Power*, 84 HARV. L. REV. 529, 529 (1971) ("Standard form contracts probably account for more than ninety-nine percent of all the contracts now made.").

2. See John F. Coyle, *Interpreting Forum Selection Clauses*, 104 IOWA L. REV. 1791, 1797 n.17 (2019) ("To speak of the 'butterfly effect' in boilerplate contract interpretation . . . is to describe the effect that a single interpretive decision can have on the interests of far-flung parties not involved in the litigation at hand.").

3. The idea of the butterfly effect originated with MIT meteorology professor Edward Lorenz in the early 1960s. Miniscule differences in data inputs between meteorological calculations yielded dramatically different outcomes the further out in the time the calculations forecasted. To describe this phenomenon, Lorenz noted that something as small as a butterfly flapping its wings could change the weather, stating, "[i]f the flap of a butterfly's wings can be instrumental in generating a tornado, it can equally well be instrumental in preventing a tornado." Edward N. Lorenz, *Predictability; Does the Flap of a Butterfly's Wings in Brazil Set off a Tornado in Texas?*, Address at the 139th Meeting of the American Association for the Advancement of Science, (Dec. 29, 1972), http://eaps4.mit.edu/research/Lorenz/Butterfly_1972.pdf [<https://perma.cc/R8VV-JS5N>]. Popular culture has translated the butterfly effect

As the first type of standardized contract described as a contract of adhesion one hundred years ago, one can intuit that courts' interpretations of insurance policies would have a butterfly effect on parties not involved in the litigation.⁴ Indeed, much of the language found in insurance policies today has been recycled in policies decade after decade.⁵ And, for some lines of insurance, many insurers use identical or nearly identical policy forms.⁶ Consequently, the courts' interpretations of the standardized policy language in insurance policies is fertile ground for the butterfly effect.

One pronounced butterfly effect occurs as a result of the first court's interpretation of the policy language because the interpretation impacts all users of the policy language.⁷ The initial interpretation also impacts how other courts will interpret the same language. Indeed, the mere prospect of a court interpreting policy language impacts insurers' litigation conduct because they, unlike most policyholders, are repeat players in litigation regarding the meaning and application of policy language. The butterfly effect from the initial court's interpretation of policy language incentivizes insurers, as repeat players, to seek or avoid judicial interpretation of policy language in order to generate or avoid the creation of such precedent.⁸

into the metaphor that seemingly insignificant events can alter the history and course of the world, while also suggesting that you can trace current events back to these seemingly insignificant events in the past. *See, e.g.*, Peter Dizikes, *The Meaning of the Butterfly: Why Pop Culture Loves the "Butterfly Effect," and Gets it Totally Wrong*, BOS. GLOBE (June 8, 2008), http://archive.boston.com/bostonglobe/ideas/articles/2008/06/08/the_meaning_of_the_butterfly/?page=full [<https://perma.cc/AY7D-Q3FX>]. This popular concept of the butterfly effect will be used in this Article in discussing specific causes and effects that result from the interpretation of standardized insurance policies.

4. *See* Edwin W. Patterson, *The Delivery of a Life-Insurance Policy*, 33 HARV. L. REV. 198, 222 (1919) (using the phrase "contract of adhesion" to describe standardized life insurance policies).

5. *See, e.g.*, JOHN F. DOBBYN & CHRISTOPHER C. FRENCH, *INSURANCE LAW IN A NUTSHELL* 64 (5th ed. 2016) ("[M]any of the terms and conditions contained in standard form policies were drafted many years ago and are reused each time a new version of the policy form is issued."); Susan Randall, *Freedom of Contract in Insurance*, 14 CONN. INS. L.J. 107, 125 (2007) ("[I]n some lines of insurance, all insurance companies provide identical coverage on the same take-it-or-leave-it basis.").

6. Randall, *supra* note 5, at 125.

7. Although they did not refer to it as the butterfly effect, the drafters of the recently issued Restatement of the Law of Liability Insurance also have recognized that courts' interpretations of standardized policy language has far reaching impacts on other insurers, policyholders, and courts. *See* RESTATEMENT OF THE LAW OF LIABILITY INS. § 2 cmt. d (AM. LAW INST. 2018) ("Adjudication of the meaning of a standard-form term in one case has consequences for the scope of the risks insured under all similar policies. . . . Although it is unlikely that most consumers are directly aware of the results of adjudication, those results inform insurers and insurance intermediaries in the pricing and marketing of insurance policies.").

8. Much legal scholarship has been dedicated to the topic of repeat players in litigation, but that is not the focus of this Article except with respect to the butterfly effect of courts' interpretations of standardized policy language on insurers' behavior as repeat players. *See, e.g.*, Elizabeth Chamblee Burch & Margaret S. Williams, *Repeat Players in Multidistrict Litigation: The Social Network*, 102 CORNELL L. REV. 1445 (2017); Charles R. Epp, *Implementing The Rights Revolution: Repeat Players And The Interpretation Of Diffuse Legal Messages*, 71 LAW & CONTEMP. PROBS., no. 2, 2008, at 41; Marc Galanter, *Why the "Haves" Come out Ahead: Speculations on the Limits of Legal Change*, 9 LAW & SOC'Y REV. 95 (1974).

Insurers also seek to counteract the butterfly effect of courts' adverse interpretations of policy language when drafting the policy language. Insurers are aware that a court's interpretation of a single word or the placement of a comma or semicolon in a sentence in a policy can result in the creation of billions of dollars of insurer liabilities to policyholders in the event of a significant coverage event. Consequently, to minimize the butterfly effect of adverse court interpretations of policy language, a drafting feedback loop can result. Insurers react to judicial interpretations by creating exclusions and/or redrafting existing policy language to avoid the application of courts' interpretations with which insurers disagree.

To examine the butterfly effect in the interpretation of insurance policies, this Article proceeds in five parts. Part II explains how insurance policies became prototypical standardized contracts. Part III addresses how courts' interpretations of policy language impact insurers' decisions whether to settle or litigate in order to obtain or avoid creating precedent regarding the meaning of standardized policy language due to the interpretation's butterfly effect. Part IV addresses insurers' efforts to counteract the butterfly effect by redrafting policy language or creating exclusions to nullify adverse court interpretations of policy language. Part V concludes.

II

THE STANDARDIZATION OF INSURANCE POLICY LANGUAGE

Insurance policies are prototypical contracts of adhesion—they are drafted by insurers and then sold on a take-it-or-leave-it basis.⁹ An insurance organization called the Insurance Services Office, Inc. (ISO) drafts many of the policy forms that are used today and then it seeks to have the forms approved by state insurance commissioners.¹⁰ Many insurers use policy forms that are identical to those drafted by ISO.¹¹ Although much of the policy language used in ISO's standard forms was first drafted decades ago, the language is often reused each time ISO issues a new version of the same policy form.¹²

9. See, e.g., Randall, *supra* note 5, at 125 (“[I]n some lines of insurance, all insurance companies provide identical coverage on the same take-it-or-leave-it basis.”); Kent D. Syverud, *The Duty to Settle*, 76 VA. L. REV. 1113, 1153 (1990) (“[P]roperty owner’s liability insurance contracts are standardized across insurers in a form few insureds have the power or experience to bargain around.”).

10. See, e.g., *Hartford Fire Ins. Co. v. California*, 509 U.S. 764, 772 (1993) (“Insurance Services Office, Inc. (ISO), an association of approximately 1,400 domestic property and casualty insurers. . . . [ISO] is the almost exclusive source of support services in this country for [Commercial General Liability (CGL)] insurance. ISO develops standard policy forms and files or lodges them with each State’s insurance regulators; most CGL insurance written in the United States is written on these forms.”) (internal citations omitted); *U.S. Fire Ins. Co. v. J.S.U.B., Inc.*, 979 So.2d 871, 879 n.6 (Fla. 2007) (“[ISO] is an industry organization that promulgates various standard insurance policies that are utilized by insurers throughout the country. . . .”).

11. See, e.g., KENNETH S. ABRAHAM & DANIEL SCHWARCZ, *INSURANCE LAW AND REGULATION* 36–37 (6th ed. 2015).

12. See DOBBYN & FRENCH, *supra* note 5, at 64. See also DONALD S. MALECKI & DAVID D. THAMANN, *COMMERCIAL GENERAL LIABILITY COVERAGE GUIDE* 363–662 (11th ed. 2015).

Policy language is reused, in part, because insurers have some disincentives to create new policy language. First, much of the policy language used already has been interpreted by courts, so insurers can predict how the language will be interpreted and applied in the future.¹³ Understanding how courts will interpret the language provides insurers with a certain level of actuarial predictability.¹⁴ Second, redrafting policy language could result in increased liabilities for insurers. The doctrine of *contra proferentem* dictates that, as the drafters of the language, ambiguities in policy language will be construed against insurers.¹⁵ Consequently, insurers could lose future cases decided under the existing policy language if they were to change the language. Changes suggest that the existing policy language is either ambiguous or, contrary to the insurer's contentions, that it unambiguously covers certain types of claims.¹⁶ Both of these factors lead to the continued use of the same policy language and the standardization of policies.¹⁷

Unlike contract disputes involving negotiated contractual terms where the court's objective in interpreting the contract is to discern the parties' mutual intent under the contract, there is no mutual intent to discern when interpreting insurance policies. Indeed, because the standardized policy language used today often was drafted long ago, the original drafters may be unknown or dead.¹⁸ In

(reproducing the various iterations of the ISO's standard CGL policy form that have been used for the past forty years, which reveals the various iterations of the policies contain many provisions that are identical or substantially similar).

13. See Michelle E. Boardman, *Contra Proferentem: The Allure of Ambiguous Boilerplate*, 104 MICH. L. REV. 1105, 1113 (2006) (arguing that the predictability in the interpretation of policy language by courts incentivizes insurers not to change policy language).

14. See, e.g., *id.* at 1107, 1116–18, 1128.

15. See, e.g., Kenneth S. Abraham, *A Theory of Insurance Policy Interpretation*, 95 MICH. L. REV. 531, 538 (1996) (“The strict liability approach to ambiguity is the principal feature of the hornbook statement of *contra proferentem*. . . . If a policy provision is ‘ambiguous’—reasonably susceptible to more than one interpretation by the ordinary reader of the policy—then the . . . interpretation more favorable to the insured governs”); Boardman, *supra* note 13, at 1121 n.64 (quoting 17A C.J.S. *Contracts* § 337 (2003)) (“The language of a contract will be construed most strictly or strongly against the party responsible for its use”).

16. See, e.g., Christopher C. French, *Insurance Policies: The Grandparents of Contractual Black Holes*, 67 DUKE L.J. ONLINE 40, 42 (2017) (“Thus, because changing the policy language could be viewed as an admission that the prior language was ambiguous or because the existing language already has been held to be unambiguous, insurers are naturally reluctant to change policy language that has already been interpreted by courts.”).

17. That is not to suggest that all insurers use the exact same policy forms. For some lines of insurance, such as homeowners insurance, there is some variation among insurers' policy forms. See Daniel Schwarcz, *Reevaluating Standardized Insurance Policies*, 78 U. CHI. L. REV. 1263, 1270–74 (2011) (“In the homeowner's insurance arena, the most commonly used form for stand-alone homes (rather than condominiums or mobile homes) is the ‘HO3’ policy. . . . The ISO also maintains several alternative insurance policies that cover stand-alone homes. . . . In addition to these various base policy forms, the ISO maintains numerous different endorsements that amend policy language.”).

18. See, e.g., DOBBYN & FRENCH, *supra* note 5, at 64; see also Christopher C. French, *The “Non-Cumulation Clause”: An “Other Insurance Clause” by Another Name*, 60 U. KAN. L. REV. 375, 386–89 (2011) (explaining the author's reliance upon the deposition testimony of a second generation drafter of the London CGL policy form to discern the original drafter's intent because original drafters of the non-cumulation clause were deceased).

addition, policyholders typically play no role in the drafting of standardized policy language, and they typically do not receive a copy of the policy until they have paid for the policy, so they do not have any pre-contract formation intent to discern regarding the meaning of any policy provisions.¹⁹ Ironically, even the insurers selling the policies typically do not have any knowledge of the original drafter's intent because the insurers using the standardized policy forms did not actually draft the language.²⁰

In addition, like many contracts of adhesion, the purchaser of an insurance policy does not really assent to the terms of the policy. This lack of assent is particularly pronounced in the insurance context. Not only do policyholders not even see a copy of the policy before purchasing it, but some lines of insurance, such as auto and homeowners, are effectively mandatory.²¹ In short, policyholders are required to purchase policies they did not draft and have never even seen. Consequently, due to the lack of true assent by policyholders to the terms of policies and the lack of mutual intent regarding the meaning of the policy language, numerous scholars have argued that standardized contracts in general, and standardized insurance policies in particular, should not even be considered contracts.²² Instead, some scholars have argued that insurance policies should be

19. See Boardman, *supra* note 13, at 1120 (noting the inability to see the insurance policy until after it is issued, the likely failure of policyholders to read it, and the incomprehensibility of such policies even when they are read); Robert E. Keeton, *Insurance Law Rights at Variance with Policy Provisions*, 83 HARV. L. REV. 961, 968 (1970) (“[T]he normal processes for marketing most kinds of insurance do not ordinarily place the detailed policy terms in the hands of the policyholder until the contract has already been made.”); Randall, *supra* note 5, at 107 (“Policyholders have no opportunity to negotiate terms, conditions, or price”); Michael B. Rappaport, *The Ambiguity Rule and Insurance Law: Why Insurance Contracts Should Not Be Construed Against the Drafter*, 30 GA. L. REV. 171, 174 (1995) (discussing the passive role of insurance consumers).

20. See RESTATEMENT (SECOND) OF CONTRACTS § 211 cmt. b (AM. LAW INST. 1981) (“Employees regularly using a form often have only a limited understanding of its terms and limited authority to vary them.”); Eugene R. Anderson & James J. Fournier, *Why Courts Enforce Insurance Policyholders’ Objectively Reasonable Expectations of Insurance Coverage*, 5 CONN. INS. L.J. 335, 364 (1998) (“[I]nsurance company ‘employees regularly using a form often have only a limited understanding of its terms. . . .’”) (quoting RESTATEMENT (SECOND) OF CONTRACTS § 211 cmt. b (AM. LAW INST. 1981)).

21. See, e.g., MARTIN F. GRACE ET AL., *CATASTROPHE INSURANCE: CONSUMER DEMAND, MARKETS AND REGULATION* 83 (Kluwer 2003) (“[H]omeowners insurance . . . is essentially mandatory”); EMMETT J. VAUGHAN & THERESE M. VAUGHAN, *FUNDAMENTALS OF RISK AND INSURANCE* 539–41 (8th ed. 1999) (conducting a fifty-state survey of the compulsory automobile liability insurance laws).

22. See, e.g., 7 MARGARET N. KNIFFIN, *CORBIN ON CONTRACTS* § 29.10, at 416 (Joseph M. Perillo ed., rev. ed. 2016) (“[T]here is a growing body of case law subverting the traditional duty-to-read concept in adhesion or other standard form contracts, on three different grounds: (1) there was not true assent to a particular term; (2) even if there was assent, the term is to be excised from the contract because it contravenes public policy; or (3) the term is unconscionable and should be stricken. At times, the same decision may employ all three rationales.”) (footnotes omitted); Robin Bradley Kar & Margaret Jane Radin, *Pseudo-Contract and Shared Meaning Analysis*, 132 HARV. L. REV. 1135, 1139–40 (2019) (arguing that “‘contract’—which now allows businesses to create legal obligations unilaterally without obtaining any actual agreement over many boilerplate ‘terms’—is no longer contract”); John F. Coyle & Joseph Green, *Contract as Swag*, 124 PENN. ST. L. REV. (forthcoming 2019) (manuscript at 3–5) (surveying the many different analogies that scholars have used with respect to contracts); Christopher C. French, *Understanding Insurance Policies as Non-Contracts: An Alternative Approach to Drafting and Construing These Unique Financial Instruments*, 89 TEMP. L. REV. 535, 565–67 (2017) (arguing the lack of mutual

viewed as products, social instruments, or statutes.²³ Despite such arguments, however, courts continue to resolve disputes regarding the meaning of policy language by invoking the rules of contract interpretation.

III

THE BUTTERFLY EFFECT IN INTERPRETING INSURANCE POLICIES

The courts' interpretation of insurance policies has a butterfly effect on insurers' litigation conduct. Insurers, as repeat litigators regarding the meaning and application of policy language, well understand that one court's interpretation of standardized policy language will have a persuasive, if not precedential, impact regarding the meaning of the policy language across the country for countless insurers and policyholders.²⁴ Courts recognize this dynamic to some extent as well. For example, to support their own interpretations of the policy language at issue, court opinions often note how many other courts have interpreted the same policy language in the same way.²⁵ Because of the butterfly effect that a single court's interpretation of policy language can have, insurers strategically decide when, and when not, to litigate and pursue appeals in order to create or to avoid creating precedent regarding the meaning of policy language.

American Nuclear Insurers' (ANI) conduct when it was first presented with environmental cleanup claims in the 1980s for waste sites that contained nuclear wastes illustrates this dynamic. Rather than implicitly encouraging policyholders to tender such claims by paying the claims or settling such claims if pressed, ANI decided to aggressively litigate such claims in an attempt to establish judicial

consent, the mandatory requirement to purchase certain lines of insurance, and the public policy of ensuring victims are compensated dictates that insurance policies should not be treated as contracts).

23. See Daniel Schwarcz, *A Products Liability Theory for the Judicial Regulation of Insurance Policies*, 48 WM. & MARY L. REV. 1389, 1397–1400 (2007) (“[J]ust as firms that make defective products must pay for the resulting injuries, insurers that issue ‘defective’ insurance policies should have to provide coverage to insureds.”); Jeffrey W. Stempel, *The Insurance Policy as Social Instrument and Social Institution*, 51 WM. & MARY L. REV. 1489, 1495–1513 (2010) (“[P]olicy construction can be improved by not only performing traditional contract analysis of disputed policies but also appreciating the particular function of the insurance policy in question as part of the insurance product’s larger role as a social and economic instrument or institution.”); Jeffrey W. Stempel, *The Insurance Policy as Statute*, 41 MCGEORGE L. REV. 203, 205 (2010) (describing “insurance policies as akin to statutes”).

24. See, e.g., Daniel Schwarcz, *Coverage Information in Insurance Law*, 101 MINN. L. REV. 1457, 1499–1500 (2017) (“[T]he binding/persuasive nature of legal precedent plus the common evolution of insurance policies means that a single adverse ruling in one case can have a dramatic impact on insurers’ coverage obligations for an entire subset of potential losses or policyholders.”).

25. See, e.g., *Aetna Cas. & Sur. Co. v. Commonwealth*, 179 S.W.3d 830, 838 (Ky. 2005) (noting that fifteen of seventeen state supreme courts interpreted the policy language the same way the court did), *modified on reh’g* 2006 Ky. LEXIS 456 (Jan. 19, 2006); *Cypress Point Condo. Ass’n, Inc. v. Adria Towers, L.L.C.*, 143 A.3d 273, 283–84 (N.J. 2016) (surveying other courts’ interpretation of the policy language at issue and noting that “[b]ecause of the factual similarity and the uniform wording of the exclusionary clauses [contained in standard form CGL policies], the reasoning in these decisions [from other jurisdictions] is thoroughly persuasive”) (quoting *Weedo v. Stone-E-Brick, Inc.*, 405 A.2d 788, 792 (N.J. 1979)).

precedent that its policies did not cover environmental waste claims. ANI's position was that its policies were intended to cover liabilities arising due to "a nuclear accident of a sizable magnitude," not liabilities associated with routine disposal in waste sites.²⁶

Consequently, in 1987, ANI immediately sued its policyholders in a declaratory judgment action when it received notice of a claim by a policyholder related to a nuclear waste site in Kentucky that had been declared a Superfund site and would cost approximately \$57 million to cleanup.²⁷ ANI asserted numerous coverage defenses in the case in an attempt to obtain a ruling that its policies did not cover environmental waste claims.²⁸ Some of the defenses asserted by ANI were resolved in a summary judgment ruling, some of them were resolved in a bench trial, and the remaining ones were resolved in a jury trial.²⁹ After losing on almost every issue in the case, instead of settling, ANI exhaustively pursued its appellate rights, first by appealing to the Kentucky Court of Appeals and then to the Kentucky Supreme Court.³⁰ The final ruling by the Kentucky Supreme Court was not issued until January 19, 2006, almost twenty years after ANI first sued its policyholder and began fighting the claims.³¹

One of the many issues ANI injected into the case was whether environmental cleanup costs were covered "damages," as the term is used in liability policies, in light of the fact that no money was actually being paid by the policyholders to any third parties to compensate them for the environmental contamination.³² Instead, ANI argued that the policyholders were simply spending money in order to clean up the site pursuant to a court order that directed them to do so.³³

The Supreme Court of Kentucky rejected ANI's arguments. In reaching the conclusion that such costs were covered "damages," the butterfly effect of other courts' interpretation of the same policy language appeared in the Supreme Court of Kentucky's opinion:

We agree with the majority of state appellate courts that hold the ordinary meaning of "damages" is broad enough to, and does include, government mandated response or cleanup costs under [the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)] and similar state environmental protection statutes: as long as the purpose is to rectify, correct, control, lessen or stop ongoing injury of the premises. This purpose is met in this action.

We are further persuaded by the reasoning of the Wisconsin Supreme Court in *Johnson Controls, Inc. v. Employers Insurance of Wausau*, 264 Wis.2d 60, 665 N.W.2d 257 (2003)

26. *Whittaker Corp. v. Am. Nuclear Insurers*, 671 F. Supp. 2d 242, 248 (D. Mass. 2009).

27. *See Aetna Cas. & Sur. Co.*, 179 S.W.3d at 835.

28. *Id.*

29. *Id.*

30. *Id.* at 830.

31. *Id.*

32. *Id.* at 838.

33. *Id.* at 835.

[and] . . . [t]he Sixth Circuit Court of Appeals . . . in the case of Anderson Development Co. v. Travelers Indem. Co., 49 F.3d 1128 (6th Cir.1995). . . .³⁴

Although it did not receive the result it wanted after twenty years of litigation, in bringing the lawsuit and fighting until the bitter end, ANI understood the butterfly effect a favorable ruling from the Kentucky Supreme Court would have had with respect to ANI's position that its nuclear liability policies did not cover waste site cleanup costs. ANI's pursuit was relentless because it knew the butterfly effect a favorable ruling would have for them.

Indeed, while the Kentucky case was pending, ANI continued its strategy of suing and fighting rather than paying claims related to nuclear sites under its policies.³⁵ In *Babcock & Wilcox Co.*, the policyholder was sued in 1994 in federal court, in what ultimately became a 500-person class action,³⁶ by people who claimed they were exposed to radiation allegedly emanating from the policyholder's nuclear facilities.³⁷ ANI agreed to defend the claims, but reserved its right to later contest and deny coverage.³⁸

A jury trial for eight of the underlying plaintiffs was conducted as a test case for the class as a whole and resulted in an award of more than \$36 million to the eight plaintiffs.³⁹ After losing this initial test trial, ANI sued the policyholder seeking, among other relief, a declaratory judgment that ANI did not have a coverage obligation for the underlying claims.⁴⁰ ANI's primary coverage defense was that the policyholder allegedly breached its duty to cooperate with ANI under the policies when the policyholder proceeded to settle with the class plaintiffs for \$80 million after ANI refused to consent to the settlement.⁴¹

Subsequently, there was a trial between the policyholder and ANI regarding the fairness and reasonableness of the underlying class settlement.⁴² The jury ruled in favor of the policyholder and ANI appealed, just as it did in *Aetna Casualty & Surety Co.*⁴³

In 2015, twenty-one years after the policyholder was first sued in the underlying class action,⁴⁴ the Supreme Court of Pennsylvania affirmed the jury's and trial court's ruling in favor of the policyholder.⁴⁵ The court held, as a matter of first impression in Pennsylvania, that a policyholder has the right to enter a

34. *Id.* at 838–39.

35. *See, e.g., Babcock & Wilcox Co. v. Am. Nuclear Insurers*, 131 A.3d 445 (Pa. 2015).

36. *Id.* at 447.

37. *Id.* at 464 (Eakin, J., concurring in part).

38. *Id.* at 447.

39. *Id.*

40. *Id.*

41. *Id.* at 447–48.

42. *Id.* at 449.

43. *Id.*

44. *Id.* at 445.

45. *Id.* at 463.

fair and reasonable settlement despite an insurer's objection to the settlement if the insurer is defending the case under a reservation of rights.⁴⁶

The *Aetna Casualty & Surety Co.* and *Babcock & Wilcox Co.* cases are examples of insurers, as repeat players, seeking to establish precedent regarding standard policy language because of insurers' awareness of the butterfly effect of courts' interpretations of such language.⁴⁷ In both cases, ANI affirmatively sought judicial interpretations of its policy language by suing its policyholders and then exhaustively pursuing its appellate rights in unsuccessful attempts to create judicial precedents regarding the meaning of the policy language. The lessons from the two cases regarding the butterfly effect are similar.

In *Aetna Casualty & Surety Co.*, ANI's apparent goal was to create the precedent that ANI's nuclear liability policies only cover claims that result from a catastrophic nuclear accident, not claims regarding the cleanup of waste sites. If ANI had been successful, there is a good chance that courts in other jurisdictions would have adopted the same interpretation of the policy language.⁴⁸ Ironically, the results of the litigation were the exact opposite of ANI's goal.

As a direct result of the litigation that ANI initiated, the butterfly effect would suggest that it should now be much easier for other policyholders to successfully assert environmental claims under ANI's policies. That, in fact, is what has happened. After the *Aetna Casualty & Surety Co.* case was finally resolved, another policyholder sued ANI in Massachusetts after the Environmental Protection Agency (EPA) demanded that the policyholder pay more than \$5 million of the environmental cleanup costs for a site the policyholder had operated.⁴⁹ ANI again denied coverage⁵⁰ and again argued its policies do not cover environmental cleanup claims: "ANI argues that if [its nuclear liability policy] is interpreted to provide coverage for the "'conventional' environmental cleanup of primary site contamination, ANI's ability to provide coverage for third-party claims in the event of a nuclear catastrophe would be severely, and possibly fatally, jeopardized."⁵¹

The federal district court in Massachusetts rejected ANI's arguments, citing *Aetna Casualty & Surety Co.* The court stated that "the Kentucky Supreme Court held that environmental cleanup costs generally were covered under ANI's [nuclear liability policy] as originally issued This court agrees with the reasoning of the Kentucky Supreme Court"⁵² The federal district court in Massachusetts thus adopted the Kentucky Supreme Court's earlier interpretation of the policy language in a display of the butterfly effect of the interpretation of standardized policy language.

46. *Id.* at 462.

47. *See supra* notes 25–46 and accompanying text.

48. *See supra* note 25 and accompanying text.

49. *Whittaker Corp. v. Am. Nuclear Insurers*, 671 F. Supp. 2d 242, 246 (D. Mass. 2009).

50. *Id.*

51. *Id.* at 249.

52. *Id.* at 249–50.

The butterfly effect lesson from *Babcock & Wilcox Co.* is similar. There, ANI sued its policyholder seeking a favorable judicial interpretation of the cooperation clause under its policies regarding its right to control the settlement of the underlying case even though ANI had not agreed to indemnify the policyholder's liabilities and had reserved its right to deny coverage.⁵³ Instead of obtaining a favorable ruling, the Supreme Court of Pennsylvania concluded ANI could not defend its policyholder subject to a reservation of its right to later deny coverage and then withhold its consent to a fair and reasonable settlement that was negotiated and entered by its policyholder.⁵⁴ The butterfly effect from this holding should be significant because policyholders now have the right under Pennsylvania law to ignore their insurers when it comes to settling if the insurer is defending the case under a reservation of rights and the settlement is fair and reasonable.

In short, *Aetna Casualty. & Surety Co.* and *Babcock & Wilcox Co.* illustrate that the butterfly effect works both ways. A butterfly flapping its wings can create a tornado or prevent one. ANI began flapping its litigation wings thirty years ago, and tornados appeared on ANI's horizon decades later.

IV

INSURERS' REDRAFTING OF POLICY LANGUAGE TO COUNTERACT THE BUTTERFLY EFFECT

In addition to gambling on the potentially favorable impact of the butterfly effect from judicial interpretations, insurers also seek to counteract the butterfly effect of adverse court interpretations by adding exclusions to standard form policies or redrafting policy language to nullify adverse court decisions. As discussed in Part II, this is not a perfect solution for insurers because redrafting policy language suggests the existing language is ambiguous and *contra proferentem* dictates that ambiguities be construed against insurers. Sometimes, however, the long term financial consequences of not redrafting outweigh the short term gains of leaving adverse court interpretations standing. Thus, a drafting and redrafting feedback loop can be created between courts' interpretations of policy language and insurers' attempts to override those interpretations by creating exclusions or redrafting policy language.

Three examples will be discussed. The first one explores how the location of a semicolon in one sentence of a policy over one hundred years ago resulted in two courts' refusal to enforce an earthquake exclusion contained in standardized property policies and insurers' subsequent creation of "ensuing loss" clauses. The second example considers how a handful of courts' interpretations of the phrase "physical loss or damage" led to insurers' creation of the "data loss" exclusion to avoid coverage for cyber losses under standardized property policies. The final example discusses the continual drafting feedback loop that has occurred over

53. *Babcock & Wilcox Co. v. Am. Nuclear Insurers*, 131 A.3d 445, 458–59 (Pa. 2015).

54. *Id.* at 463.

the past fifty years regarding the “pollution” exclusion contained in commercial general liability policies as insurers have sought to avoid or embrace the courts’ interpretations of the exclusion.

A. The Creation of Ensuing Loss Clauses

In 1906, a massive earthquake struck San Francisco.⁵⁵ The earthquake caused gas lines to break and a catastrophic fire swept across the city.⁵⁶ The city was annihilated in three days.⁵⁷ Thousands of people were killed and most of the homes in the city were destroyed.⁵⁸ The damage would total billions in present-day dollars.⁵⁹

At that time, standardized property policies covered losses caused by fire, but they also contained what is known as an “anti-concurrent causation”⁶⁰ exclusion that excluded losses caused by earthquakes.⁶¹ The specific policy language was worded as follows:

[The policyholder is insured] against all direct loss or damage by fire except as hereinafter provided . . .

This company *shall not be liable for loss caused directly or indirectly by invasion, insurrection, riot, civil war, or commotion, or military or usurped power, or by order of any civil authority; or for loss or damage occasioned by or through any volcano, earthquake, or hurricane, or other eruption, convulsion, or disturbance, or by theft, or by neglect of the insured to use all reasonable means to save and preserve the property at and after a fire, or when the property is endangered by fire in neighboring premises, or (unless fire ensues and in that event for the damage by fire only) by explosion or any kind of lightning; but liability for direct damage by lightning may be assumed by agreement indorsed hereon.*⁶²

When billions of dollars’ worth of property damage claims were presented for payment following the earthquake, many insurers declined to pay based on the earthquake exclusion.⁶³ They argued that the losses were not covered because an

55. James S. Harrington, *Lessons of the San Francisco Earthquake of 1906: Understanding Ensuing Loss in Property Insurance*, 37 THE BRIEF: TORT TRIAL & INS. PRAC. SEC., Summer 2008, at 28.

56. *See id.*

57. *Id.*; *see also* PATRICIA GROSSI & ROBERT MUIR-WOOD, THE 1906 SAN FRANCISCO EARTHQUAKE AND FIRE: PERSPECTIVES ON A MODERN SUPER CAT 5 (Irene Fehr ed., 2006).

58. *See* GROSSI & MUIR-WOOD, *supra* note 57, at 4.

59. *Id.* at 4 n.1.

60. “Concurrent causation” is a phrase used in the insurance context to address situations where a loss is caused by more than one peril. Typically, one or more of the perils is excluded from coverage. Contrary to the conventional understanding of “concurrent” to mean “simultaneous” or “at the same time,” the phrase “concurrent causation” in the insurance context is broadly used to encompass situations where there are: (1) sequential causes in a causal chain of events; (2) independent, unrelated events acting in conjunction; and (3) related or unrelated events that happen in succession. *See* Mark M. Bell, *A Concurrent Mess and a Call for Clarity in First-Party Property Insurance Coverage Analysis*, 18 CONN. INS. L.J. 73, 74 (2011).

61. Harrington, *supra* note 55, at 28.

62. *Williamsburgh City Fire Ins. Co. of Brooklyn v. Willard*, 164 F. 404, 405 (9th Cir. 1908) (emphasis added).

63. *See* GROSSI & MUIR-WOOD, *supra* note 57, at 9 (“Fifty-nine insurance companies refused to pay all or part of their claims, including six Austrian and German insurers who simply walked away from their liabilities.”).

earthquake directly or indirectly caused the losses—an earthquake caused the fire which, in turn, destroyed the city.⁶⁴

This argument was rejected by both the Supreme Court of California and the Ninth Circuit, which held the losses were covered.⁶⁵ In finding coverage, the courts reasoned the policy language was ambiguous because the “directly or indirectly” language in the exclusion arguably only applied to the perils listed before the semicolon in the sentence.⁶⁶ Thus, the “directly or indirectly” language did not apply to losses caused by perils, such as earthquakes, that were listed after the semicolon:

By its plain terms the company agreed to pay him a certain sum in case of the destruction of his property by fire. His property was destroyed by fire, and the defendant thus became liable unless saved by the exception in the clause hereinbefore quoted. The first part of the exception, to wit, “this company shall not be liable for loss caused directly or indirectly by invasion, insurrection, riot, civil war or commotion, or military or usurped power, or by order of any civil authority,” ends by a semicolon. It is thus plainly stated that the company shall not be liable for loss “caused directly or indirectly” by the various things therein enumerated. As the damage in this case was not caused by any of the things enumerated in the first clause of the condition, it therefore is not subject to the comprehensive words “caused directly or indirectly.” After the use of the above quoted words, and after the semicolon, occur the words “or for loss or damage occasioned by or through any volcano, earthquake” The words “damage occasioned by or through . . . any earthquake” by their fair interpretation mean such damage as is caused “by or through an earthquake.” What was the cause of the plaintiff’s loss or damage? It was fire, the peril which he had insured against. When the earthquake occurred, and the vibrations of the earth ceased, the plaintiff’s property had not been damaged, nor had he lost it. . . . He afterwards lost his property by fire, which was the direct and proximate cause of his loss.⁶⁷

The courts’ analysis is significant with respect to the butterfly effect for two reasons. First, when the insurers drafted the exclusion, they likely did not appreciate that the location of the semicolon in the sentence would be the difference between paying billions of dollars of losses or none at all years later. Thus, the apparently insignificant use of a semicolon instead of a comma in the sentence caused a significant, and likely actuarially unanticipated, increase in the insurers’ liabilities long after the language was drafted.

Second, after the Ninth Circuit’s and Supreme Court of California’s decisions were issued, the insurance world drastically changed because insurers began including what are now known as “ensuing loss” clauses in their policies to address situations where an excluded peril causes a covered peril which in turn causes a loss.⁶⁸ Ensuing loss clauses reinstate coverage for the losses caused by

64. *Willard*, 164 F. at 405; *Pac. Heating & Ventilating Co. v. Williamsburgh City Fire Ins. Co.*, 111 P. 4, 4 (Cal. 1910).

65. *Willard*, 164 F. at 409; *Pac. Heating & Ventilating Co.*, 111 P. at 7.

66. *Willard*, 164 F. at 407–08; *Pac. Heating & Ventilating Co.*, 111 P. at 5.

67. *Pac. Heating & Ventilating Co.*, 111 P. at 5.

68. See INT’L RISK MGMT. INST., INC. COMMERCIAL PROPERTY INSURANCE § IV.J.38 (2011). An example of an ensuing loss clause is worded as follows: “We insure for all risks of physical loss to the property described in Coverage A except for loss caused by . . . [any of the 6 following excluded perils]. . . . Any ensuing loss from items 1 through 6 not excluded is covered.” *Roberts v. State Farm Fire & Cas. Co.*, 705 P.2d 1335, 1336 (Ariz. 1985). Thus, under this ensuing loss clause, just as the California Supreme

the covered peril—such as a fire—even though an excluded peril—such as an earthquake—occurred earlier in the chain of causation. The subsequent creation and use of ensuing loss clauses was a direct consequence of the courts’ interpretations of the existing standardized policy language.⁶⁹

As the coverage provided under property insurance has expanded over the past one hundred years to cover losses caused by numerous additional perils other than fire, ensuing loss clauses have continued to be included in policies to reinstate coverage caused by covered perils even though such policies also often contain anti-concurrent causation exclusions like the one at issue in the San Francisco earthquake cases.⁷⁰ Thus, ensuing loss clauses are an example of courts’ interpretations of policy language directly causing insurers to redraft policy language.

B. The Creation of the “Data Loss” Exclusion

“All risk” property policies cover all risks of loss unless an excluded peril causes the loss.⁷¹ All risk property policies typically contain coverage triggering language identical or similar to the following: “[The insurer agrees to cover] all risks of physical loss or damage to all real or personal property of every kind and description wherever located occurring during the period of this insurance.”⁷²

In most situations, it is obvious whether “physical loss or damage” has occurred. For example, when the fire burned down countless houses in San Francisco in 1906, no one would question whether physical loss or damage had occurred.

In other contexts, however, whether physical loss or damage has occurred is not as clear. For example, if a building was built in 1960 using asbestos insulation because of asbestos’ fire retardant qualities, has the building suffered physical loss or damage if the owner is required by building ordinances in 2000 to spend \$1 million to remove the asbestos from the building even though the asbestos was deliberately used in the building and the building is otherwise completely functional?

Similarly, modern technologies blur the line regarding whether physical loss or damage has occurred. For example, do computer hacking events involve physical loss or damage? More specifically, if a business’ computer system is hacked and its website is inoperable for forty-eight hours such that the business

Court and Ninth Circuits held, the damage caused by the San Francisco fire would be covered despite the earthquake exclusion.

69. See Christopher C. French, *The “Ensuing Loss” Clause in Insurance Policies: The Forgotten and Misunderstood Antidote to Anti-Concurrent Causation Exclusions*, 13 NEV. L.J. 215, 217 (2012).

70. *Id.*

71. See, e.g., Jeff Katofsky, *Subsiding Away: Can California Homeowners Recover from Their Insurer for Subsidence Damages to Their Homes?*, 20 PAC. L.J. 783, 785 (1989) (“In an ‘all-risk’ policy, all losses except those specifically excluded are covered. This is the broadest form of coverage and has been so interpreted by the courts.”).

72. Bd. of Educ. of Twp. High Sch. Dist. No. 211 v. Int’l Ins. Co., 720 N.E.2d 622, 624 (Ill. App. Ct. 1999), *modified on denial of reh’g* (Dec. 3, 1999).

loses \$50,000 in online sales, has the business suffered physical loss or damage even though no physical injury to the computer system or website occurred?

In interpreting the phrase “physical loss or damage,” one argument is that the word “physical” only qualifies “loss,” not “damage.” In other words, the phrase does not mean “physical injury or physical damage.” The term “damage” is not defined in insurance policies, but it is commonly understood to mean “the estimated reparation in money for detriment or injury sustained.”⁷³ Thus, in both the asbestos scenario and the computer hacking scenario, the policyholder unquestionably has suffered a monetary “detriment,” so it has suffered “damage.” Yet, no property has been physically injured or physically damaged in the same way a house is when it burns to the ground.

On the other hand, the word “physical” could be interpreted to modify both “injury” and “damage.” In that case, neither the building containing asbestos nor the hacked computer system has suffered an injury or damage because no physical injury or physical damage occurred.

Courts have long grappled with this problem and the results have not been completely satisfactory from the insurers’ perspective. With respect to asbestos in buildings, many courts have held that a property owner has suffered a physical loss or damage without addressing the issue of whether “physical” modifies both “injury” and “damage.” These courts have done so by holding that the loss of use of the building due to the presence of some contaminant, such as asbestos, effectively constitutes a physical injury if people cannot safely occupy the building in its current condition.⁷⁴ With respect to cyber losses that are unaccompanied by physical damage, some courts have held the impairment of a computer system satisfies the physical injury or damage requirement even though the computer system has not actually been physically harmed.⁷⁵

73. See *New Castle Cty. v. Hartford Acc. & Indem. Co.*, 933 F.2d 1162, 1189 (3d Cir. 1991) (quoting *Damage*, WEBSTER’S THIRD NEW INTERNATIONAL DICTIONARY (1971)), *abrogated by* *N. Ins. Co. of N.Y. v. Aardvark Assocs., Inc.*, 942 F.2d 189 (3d Cir. 1991).

74. See, e.g., *Bd. of Educ. of Twp. High Sch.*, 720 N.E.2d at 625–26 (holding presence of friable asbestos that must be removed constituted physical loss or injury); *Essex v. BloomSouth Flooring Corp.*, 562 F.3d 399, 406 (1st Cir. 2009) (ruling unpleasant odor was physical injury to property); *Motorists Mutual Ins. Co. v. Hardinger*, 131 F. App’x 823, 825–27 (3d Cir. 2005) (holding bacterial contamination of well water constitutes physical loss to house if it renders the house unusable); *TRAVCO Ins. Co. v. Ward*, 715 F. Supp. 2d 699, 709 (E.D. Va. 2010) (determining toxic gases emitted by Chinese drywall constituted physical injury or damage), *aff’d*, 504 F. App’x 251 (4th Cir. 2013); *Farmers Ins. Co. of Or. v. Trutanich*, 858 P.2d 1332, 1336 (Or. 1993) (ruling that the cost of removing odor from a methamphetamine lab constituted a physical loss).

75. See, e.g., *Am. Guarantee & Liab. Ins. Co. v. Ingram Micro, Inc.*, No. CIV. 99–185 TUC ACM, 2000 WL 726789, at *2 (D. Ariz. Apr. 18, 2000) (“[P]hysical damage’ is not restricted to the physical destruction or harm of computer circuitry but includes loss of access, loss of use, and loss of functionality.”); *Lambrech & Assocs., Inc. v. State Farm Lloyds*, 119 S.W.3d 16, 26 (Tex. App. 2003) (holding insurer’s “contention that [the policyholder] did not suffer an ‘accidental direct physical loss’ runs contrary to the language of the policy, which expressly states that it will pay for loss of business income caused by ‘accidental direct physical loss’ to ‘electronic media and records’”). *But see* *Simon Mktg., Inc. v. Gulf Ins. Co.*, 57 Cal. Rptr. 3d 49, 53 (Cal. Ct. App. 2007) (“[D]etrimental economic impact unaccompanied by a distinct, demonstrable, physical alteration of the property’ . . . is not compensable under a contract of property insurance.”); *Ward Gen. Ins. Servs., Inc. v. Emp’rs Fire Ins. Co.*, 7 Cal. Rptr.

These decisions have had far-reaching consequences when it comes to drafting and redrafting policy language. As they often have done in other contexts,⁷⁶ ISO drafted an exclusion in an attempt to eliminate coverage under standardized property insurance policies for most types of cyber losses.⁷⁷ Thus, in reaction to courts' unfavorable interpretations of the policy language and the potential butterfly effect such decisions would have regarding coverage for cyber losses under standardized property policies, insurers did not clarify the meaning of the phrase "physical loss or damage" in an attempt to address the courts' interpretations. Instead, insurers created and added an exclusion to property policies for such losses and began selling specialized cyber risk policies, for an additional premium, to cover cyber losses.⁷⁸

Insurers' have responded slightly differently to the cases where courts found the presence of contaminants, such as asbestos, was physical loss or damage if the contaminant needed to be removed from the building. Again, rather than defining the term "damage," clarifying the meaning of the phrase "physical loss or damage," or even adding a new exclusion like insurers have done in other contexts, insurers instead have relied upon the existing "pollution" exclusion contained in their standardized property policies to defeat coverage for most of those types of claims.⁷⁹ Indeed, as discussed in the next part, insurers have repeatedly revised the pollution exclusion since it was first introduced in the early 1970s in a drafting feedback loop in response to courts' unfavorable interpretations of the exclusion.

C. The Repeated Redrafting of the Pollution Exclusion

In 1960, Lloyd's of London created the first version of modern occurrence-based Commercial General Liability (CGL) policies, which is the type of CGL

3d 844, 851 (Cal. Ct. App. 2003) ("[T]he loss of the database, with its consequent economic loss, but with no loss of or damage to tangible property, was not a 'direct physical loss of or damage to' covered property under the terms of the subject insurance policy' . . ."), *modified on denial of reh'g* (Jan. 7, 2004); *Nevers v. Aetna Ins. Co.*, 546 P.2d 1240, 1241 (Wash. Ct. App. 1976) (holding a defect in title to a boat is not "physical loss or damage" under an all risk yacht policy).

76. See, e.g., Christopher C. French, *The Role of the Profit Imperative in Risk Management*, 17 U. PA. J. BUS. L. 1081, 1096–1114 (2015) (discussing insurers' additions of exclusions for pollution claims, asbestos claims, terrorism claims, Y2K claims, and mold claims after losses associated with such claims began to materialize).

77. Ins. Servs. Office, Inc., Form No. CP 00 30 10 12, Commercial Property Business Income (and Extra Expense) Coverage Form, Additional Limitation – Interruption of Computer Operations (a)–(c) (2011), <http://pacificcoastes.com/assets/BusinessIncomeEE1.pdf> [<https://perma.cc/7PVB-CBGL>].

78. See generally Erik S. Knutsen & Jeffrey W. Stempel, *The Techno-Neutrality Solution to Navigating Insurance Coverage for Cyber Losses*, 122 PENN ST. L. REV. 645 (2018) ("[I]nsurers currently constrict coverage for losses involving electronic information in traditional insurance product lines. As a result, insurance customers are driven to the brave new world of non-standardized varieties of cyber-risk insurance policies."); Margaret A. Reetz, et al., *Cyber Risks: Evolving Threats, Emerging Coverages, and Ensuing Case Law*, 122 PENN ST. L. REV. 727 (2018) (discussing the development of cyber risk policies and the difficulties of protecting and insuring data).

79. See, e.g., BARRY R. OSTRAGER & THOMAS R. NEWMAN, HANDBOOK ON INSURANCE COVERAGE DISPUTES § 21.04[c], at 1560–62 (19th ed. 2019) (discussing numerous cases in which courts applied the pollution exclusion to contamination claims under property policies).

policy form still most commonly used today.⁸⁰ Under occurrence-based insurance, the coverage-triggering event is an “occurrence.” An occurrence was originally defined as “an accident, including continuous or repeated exposure to conditions, which results in bodily injury or property damage neither expected nor intended from the standpoint of the insured.”⁸¹

When first created, the occurrence-triggering policy form meant coverage was expressly provided for injury-causing situations that could span long periods of time, such as environmental pollution. As one insurer representative in the 1960s explained:

The definition [of “occurrence”] embraces an injurious exposure to conditions which results in injury. Thus, it is no longer necessary that the event causing the injury be sudden in character. In most cases, the injury will be simultaneous with the exposure. However, in some other cases, injuries will take place over a long period of time before they become manifest. The slow ingestion of foreign matters and inhalation of noxious fumes are examples of injuries of this kind. The definition serves to identify the time of loss for application of coverage in these cases, viz, the injury must take place during the policy period. This means that in exposure-type cases, cases involving cumulative injuries, more than one policy contract may come into play in determining coverage and its extent under each policy.⁸²

Indeed, when insurers changed the CGL policy form from accident-based to occurrence-based in the 1960s, insurers actually marketed the new policies as covering gradual injury-causing situations, such as pollution, so long as the injury was not expected or intended by the policyholder.⁸³

After initially embracing coverage for environmental claims under CGL policies, insurers reversed course after several significant environmental incidents in 1969, including the Torrey Canyon disaster and the Santa Barbara offshore oil spill, raised the national profile of pollution in a negative way.⁸⁴ Then,

80. See French, *supra* note 18, at 387. See generally Jeffrey W. Stempel, *Assessing the Coverage Carnage: Asbestos Liability and Insurance After Three Decades of Dispute*, 12 CONN. INS. L.J. 349, 364–70 (2006) (explaining the insurance industry’s move from “accident” to “occurrence” coverage in their policies to reflect the judicial interpretations that held “an ‘accident’ need not be confined in time and space . . .”).

81. See Ins. Servs. Office, Inc., Form No. GL 00 02 01 73, Commercial General Liability Coverage Form, Definitions (1973), reprinted in MALECKI & THAMANN, *supra* note 12, at 363.

82. Stempel, *supra* note 80, at 368 (emphasis omitted) (quoting Norman Nachman, *The New Policy Provisions for General Liability Insurance*, 10 CPCU ANNALS 196, 199–200 (1965)). Nachman was the manager of casualty insurance and multiple lines insurance at the National Bureau of Casualty Underwriters, a predecessor to ISO.

83. See, e.g., Morton Int’l, Inc. v. Gen. Acc. Ins. Co. of Am., 629 A.2d 831, 849–71 (N.J. 1993) (discussing coverage for environmental injuries under the 1960s CGL policy form); *Just v. Land Reclamation, Ltd.*, 456 N.W. 2d 570, 574 (Wis. 1990) (“At least with respect to environmental claims, contemporaneous industry commentary on the 1966 CGL policy indicates that there was no intent to avoid coverage for unexpected or unintended pollution.”); see also Thomas Reiter, David Strasser & William Pohlman, *The Pollution Exclusion Under Ohio Law: Staying The Course*, 59 U. CIN. L. REV. 1165, 1191–93 (1991) (discussing the history of insurers’ positions regarding coverage for environmental claims).

84. See, e.g., Warren Brockmeier, *Pollution—The Risk and Insurance Problem*, 12 FOR THE DEFENSE 77, 77–78 (1971) (discussing changes to CGL coverage after environmental disasters in the 1960s); James Hourihan, *Insurance Coverage for Environmental Damage Claims*, 15 FORUM 551, 553

a year later, Congress passed the Federal Water Quality Improvement Act, which imposed strict liability for discharges of certain types of materials into waterways.⁸⁵

In response to these developments, insurers quickly drafted what is now known as the “qualified” pollution exclusion or “sudden and accidental” pollution exclusion and began using it as an endorsement in 1970.⁸⁶ It became part of the CGL policy form itself in 1973.⁸⁷ The qualified pollution exclusion was worded as follows:

This insurance does not apply . . . (f) to bodily injury or property damage arising out of the discharge, dispersal, release or escape of smoke, vapors, soot, fumes, acids, alkalis, toxic chemicals, liquids or gases, waste materials or other irritants, contaminants or pollutants into or upon land, the atmosphere or any water course or body of water; but this exclusion does not apply if such discharge, dispersal, release or escape is sudden and accidental⁸⁸

In short, claims related to environmental contamination were not covered under this exclusion unless the event(s) giving rise to the contamination were “sudden and accidental.”

The meaning of “sudden and accidental” in the context of environmental pollution did not really become important until the CERCLA and the Superfund Amendments and Reauthorization Act (SARA), collectively known as the “Superfund” laws, were passed in the 1980s.⁸⁹ The Superfund laws imposed retroactive, strict, and joint and several liability for the cleanup of environmental contamination on: (1) the current owners and operators of waste disposal sites, (2) the owners and operators of waste disposal sites during the time of the disposal, (3) the entities that arranged for the disposal or treatment of hazardous materials, and (4) the transporters of hazardous materials.⁹⁰ With the passage of the Superfund laws, hundreds of billions of dollars of liabilities were almost immediately created for policyholders.⁹¹ Policyholders, in turn, sought coverage from their insurers for those liabilities under CGL policies.

(1980) (“Pollution claims burst on the insurance scene following the Torrey Canyon disaster and the Santa Barbara office-short drilling oil spills in 1969.”).

85. Pub. L. No. 91-224, § 102, 84 Stat. 91 (1970) (formerly codified at 33 U.S.C. § 1161) (superseded by Federal Water Pollution Control Act Amendments of 1972, § 2, Pub. L. No. 92-500, 88 Stat. 816 (1972) (codified at 33 U.S.C. §§ 1251–1387 (2012))).

86. See, e.g., Reiter, et al., *supra* note 83, at 1196–1200.

87. *Id.*; see also Ins. Servs. Office, Inc., Form No. GL 00 02 01 73, Commercial General Liability Coverage Form, Exclusion (f) (1973), *reprinted in* MALECKI & THAMANN, *supra* note 12, at 366.

88. Ins. Servs. Office, Inc., Form No. GL 00 02 01 73, Commercial General Liability Coverage Form, Exclusion (f) (1973), *reprinted in* MALECKI & THAMANN, *supra* note 12, at 366.

89. 42 U.S.C. §§ 9601–9675 (2012).

90. See, e.g., O’Neil v. Picillo, 883 F.2d 176, 178 (1st Cir. 1989) (discussing CERCLA’s retroactive effect and joint and several liability); United States v. R.W. Meyer, Inc., 889 F.2d 1497, 1506 (6th Cir. 1989) (same); United States v. Stringfellow, 661 F. Supp. 1053, 1060, 1062 (C.D. Cal. 1987) (discussing CERCLA’s imposition of strict liability and joint and several liability).

91. See, e.g., Reiter et al., *supra* note 83, at 1171 (noting that the estimated industry liability for environmental contamination was between \$150 billion and \$700 billion).

In response to these massive liabilities, insurers denied coverage and argued liability for environmental contamination was excluded from coverage under the qualified pollution exclusion unless the contamination resulted from “sudden” (abrupt) releases of contaminants.⁹² Policyholders responded to the insurers’ position by arguing that “sudden” also can mean “unexpected.”⁹³ Ultimately, numerous courts interpreted the exclusion in favor of policyholders, which meant insurers became liable for billions of dollars of environmental cleanup costs.⁹⁴

The fact that some courts agreed with policyholders’ interpretation of the exclusion and insurers had to pay billions of dollars of liabilities had widespread effects. Unlike other times when insurers disagreed with courts’ interpretation of their policy language and simply added an exclusion to override the courts’ interpretations without actually redrafting the policy language at issue, insurers could not do that in this situation because courts were already interpreting an exclusion.⁹⁵

So, in 1986, ISO revised the pollution exclusion by replacing the qualified pollution exclusion with what became known as the “absolute” pollution exclusion.⁹⁶ It provided:

This insurance does not apply to . . .

“Bodily injury” or “Property damage” arising out of the actual, alleged or threatened discharge, dispersal, seepage, migration, release or escape of pollutants . . .

92. See, e.g., *E.I. du Pont de Nemours & Co. v. Admiral Ins. Co.*, 711 A.2d 45, 52 (Del. Super. Ct. 1995) (describing insurers’ argument “the term ‘sudden’ in the exception to the pollution exclusion has a temporal meaning synonymous with ‘abrupt’”); *Morton Int’l, Inc. v. General Acc. Ins. Co.*, 629 A.2d 831, 849–71 (N.J. 1993) (describing insurers’ contention CGL policies only covered environmental contamination if the releases causing the contamination were abrupt); *Sinclair Oil Corp. v. Republic Ins. Co.*, 929 P.2d 535, 538 (Wyo. 1996) (discussing insurers’ contention that “sudden incorporates a temporal element”).

93. See, e.g., *E.I. du Pont de Nemours & Co.*, 711 A.2d at 52 (“DuPont argues the term ‘sudden’ is ambiguous, and the Court should interpret ‘sudden’ to mean ‘unexpected.’”); *Sinclair Oil Corp.*, 929 P.2d at 538 (stating that the policyholder “contends the term is ambiguous because although sudden can mean ‘abrupt’ or ‘happening quickly’ it can also mean ‘unexpected’”).

94. See, e.g., *Hecla Mining Co. v. N.H. Ins. Co.*, 811 P.2d 1083, 1092 (Colo. 1991) (en banc) (“Although ‘sudden’ can reasonably be defined to mean abrupt or immediate, it can also reasonably be defined to mean unexpected and unintended. Since the term ‘sudden’ is susceptible to more than one reasonable definition, the term is ambiguous, and we therefore construe the phrase ‘sudden and accidental’ against the insurer to mean unexpected and unintended.”); *Claussen v. Aetna Cas. & Sur. Co.*, 380 S.E.2d 686, 690 (Ga. 1989) (“In sum, we conclude that the pollution exclusion clause is capable of more than one reasonable interpretation. The clause must therefore be construed in favor of the insured to mean ‘unexpected and unintended.’”).

95. See *Ins. Servs. Office, Inc.*, Form No. CP 00 30 10 12, Commercial Property Business Income (and Extra Expense) Coverage Form, Additional Limitation – Interruption of Computer Operations (a)–(c) (2011), <http://pacificcoastes.com/assets/BusinessIncomeEE1.pdf> [<https://perma.cc/7PVB-CBGL>].

96. See, e.g., Jeffrey W. Stempel, *Reason and Pollution: Correctly Construing The “Absolute” Exclusion In Context And In Accord With Its Purpose And Party Expectations*, 34 TORT & INS. L.J. 1, 1–2 (1998) (“Responding to the flurry of environmental litigation over the application of the ‘sudden and accidental’ pollution exclusion, the insurance industry during the mid-1980s largely adopted new standard pollution exclusion language for commercial general liability (CGL) policies. Since the mid-1980s, the standard form CGL has included the so-called absolute pollution exclusion”); OSTRAGER & NEWMAN, *supra* note 79, § 23.02[d], at 1683–87 (citing decisions in fourteen states where courts rejected the insurers’ litigation position regarding the qualified pollution exclusion).

Pollutants means any solid, liquid, gaseous or thermal irritant or contaminant, including smoke, vapor, soot, fumes, acids, alkalis, chemicals and waste. Waste includes materials to be recycled, reconditioned or reclaimed.⁹⁷

In sum, the exclusion eliminated the temporal element of the qualified pollution exclusion and purportedly made the exclusion for pollution claims “absolute.”

That was not the end, however, of the redrafting feedback loop caused by courts’ interpretations of the pollution exclusion. After the absolute pollution exclusion began being used, disputes arose regarding the scope of the absolute pollution exclusion because insurers attempted to invoke it for many types of claims that were not environmental contamination claims.

For example, in *Stoney Run Co. v. Prudential LMI Commercial Insurance Co.*, several tenants in a building were killed due to a faulty heating and ventilation system that allowed carbon monoxide to enter their apartments.⁹⁸ When the building owners were sued for these deaths, the insurer denied coverage on the basis of the absolute pollution exclusion.⁹⁹ The Second Circuit, however, rejected the insurer’s position, holding the exclusion had a latent ambiguity in it when the purpose of the exclusion was considered.¹⁰⁰ Despite its broad wording, the exclusion’s purpose was to eliminate coverage for environmental waste claims, not bodily injury claims due to exposure to gases from a defective heating and ventilation system:

A reasonable interpretation of the pollution exclusion clause is that it applies only to environmental pollution, and not to all contact with substances that can be classified as pollutants. We hold that the release of carbon monoxide into an apartment is not the type of environmental pollution contemplated by the pollution exclusion clause.¹⁰¹

Other courts reached similar conclusions in other cases, rejecting the application of the absolute pollution exclusion in contexts other than traditional environmental claims.¹⁰² Consequently, the redrafting feedback loop between courts’ interpretations of the pollution exclusion and insurers’ redrafting of it has continued.

Since 1986, the absolute pollution exclusion has been revised multiple times. The latest version of the pollution exclusion is known as the “total” pollution exclusion.¹⁰³ The total pollution exclusion attempts to accommodate some of the

97. Ins. Servs. Office, Inc., Form No. CG 00 01 11 85, Commercial General Liability Coverage Form, Exclusion (f) (1986), *reprinted in* MALECKI & THAMANN, *supra* note 12, at 374 (reflecting the change from the qualified pollution exclusion to the absolute pollution exclusion in ISO’s 1986 CGL policy form).

98. 47 F.3d 34, 35 (2d Cir. 1995).

99. *Id.*

100. *Id.*

101. *Id.* at 38.

102. *See, e.g.*, OSTRAGER & NEWMAN, *supra* note 79, § 23.03[b], at 1699–1703 (discussing cases where courts refused to apply the absolute pollution exclusion to claims that were not traditional environmental claims).

103. *See, e.g.*, 9 COUCH ON INSURANCE § 127:13 (S. Plitt et al. eds., 3d ed. June 2019) (some provisions in the absolute pollution exclusion “gave rise to ambiguity, so another version was introduced known as the ‘total pollution’ exclusion”).

court decisions that identified and rejected the overbreadth of the absolute pollution exclusion by expressly reinstating coverage for situations such as the one at issue in *Stoney Run* involving the deaths caused by defective heating and ventilation.¹⁰⁴ For example, the total pollution exclusion includes the following exception to the exclusion:

This insurance does not apply to

“Bodily injury” or “Property damage” arising out of the actual, alleged or threatened discharge, dispersal, seepage, migration, release or escape of “pollutants”:

At or from any premises, site or location which is or was at any time owned or occupied by, or rented or loaned to, any insured. *However, this subparagraph does not apply to:*

- (i) “Bodily injury” if sustained within a building and caused by smoke, fumes, vapor or soot produced by or originating from equipment used to heat, cool or dehumidify the building, or equipment that is used to heat water for personal use, by the building’s occupants or their guests¹⁰⁵

Thus, although the current version of the pollution exclusion is called the total pollution exclusion, it is not really a total exclusion. And, if the past is prologue, then one can expect the redrafting feedback loop between courts’ interpretations of the pollution exclusion and insurers’ redrafting of the exclusion will continue as insurers seek to combat the butterfly effect of courts’ interpretations of the exclusion.

V

CONCLUSION

Insurers, as sophisticated repeat players, respond to new risks and adverse coverage determinations by courts in several ways. One response is by returning to the metaphorical drawing board of policy language. Consequently, a redrafting feedback loop between courts’ interpretations of policy language and insurers’ creation of exclusions and/or revisions to policy language has occurred as insurers seek to achieve their desired interpretations of standardized policy language notwithstanding court rulings to the contrary. In doing so, insurers have taken such actions to counteract the butterfly effect that occurs when a court adversely construes language that appears in thousands of different insurance policies.

At other times, insurers seek to benefit from the butterfly effect by bringing lawsuits in an attempt to obtain their desired interpretations of the policy language with the expectation that a favorable interpretation by one court will lead courts in other jurisdictions to adopt the same interpretations of the language. But, that strategy can backfire because the butterfly effect works both ways—sometimes it leads to a desired result and sometimes it leads to an undesired result. Although it is perfectly predictable that a butterfly effect will result from courts’ interpretations of standardized policy language, *what* the

104. See Ins. Servs. Office, Inc., Form No. CG 00 01 04 13, Commercial General Liability Coverage Form, Exclusion (f) (2013), *reprinted in* MALECKI & THAMANN, *supra* note 12, at 605 (reproducing the total pollution exclusion contained in ISO’s 2013 CGL policy form).

105. *Id.* (emphasis added).

butterfly effect will be is not perfectly predictable. Indeed, as the creator of the concept of the butterfly effect aptly put it, “[i]f the flap of a butterfly’s wings can be instrumental in generating a tornado, it can equally well be instrumental in preventing a tornado.”¹⁰⁶ ANI’s ironic litigation results illustrate this point.

106. See Lorenz, *supra* note 3.