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TWO-WAY CAUSALITY BETWEEN INSURANCE AND LIABILITY

JOAN T. SCHMIT*
KATHERINE L. PHELPS**

I. INTRODUCTION

Two-way causality is a term used to describe certain economic relationships. Two-way causality relationships exist when a predictive variable is dependent on the variable of prediction.¹ Where two-way causality is found in economics, application of particular statistical techniques is required to specify the relationship.²

The relationship between insurance availability and liability determination demonstrates the two-way causality phenomenon. This assertion rests on the observation that determination of liability, often predicated on the availability of insurance,³ develops a need for insurance.⁴ Thus, liability is

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1. The classic example of two-way causality is in the definition of demand as a function of price. It is a two-way relationship because price, in turn, is a function of demand. That is, price (P) is a function of demand: $P = f(D)$; and demand (D) is a function of price; $D = g(P)$. See generally H. THEIL, PRINCIPLES OF ECONOMETRICS (1971).

2. One popular method of dealing with two-way causality in economics is through employment of simultaneous equations. Thus, price and demand, for example, are determined simultaneously: $P = f(g(P))$.

3. See, e.g., Galante, *Calif. Court Says Insurers Have No Duty in Sex Suits*, Nat'l L.J., Oct. 15, 1984, at 6. The article implies that a court's refusal to require a homeowner's insurer to defend an insured in a sexual molestation case (because the act was intentional and, thus excluded from coverage) would make recovery in such suits difficult for other plaintiffs. In essence, the implication is that lack of insurance reduces the likelihood of liability.

4. For example, one author reported the following:

The cloak of judicial immunity is unraveling further as the result of a recent Supreme Court decision that increases judges' exposure to liability for their actions from the bench.

As a result, risk managers for public entities with judges in their jurisdiction have a new liability exposure and *may need to seek additional insurance for them*. Fletcher, *Ruling Unravels Judges' Cloak of Immunity*, BUS. INS., Aug. 13, 1984, at 3 (emphasis supplied).

a function of insurance and insurance a function of liability. Unlike the economic relationship, however, two-way causality between liability and insurance is not merely a problem of statistical specification; it is a problem that alters relationships in a fashion the authors consider undesirable.⁵ Therefore, the purpose of this article is to illustrate causality between insurance and liability, analyze the resulting benefits and detriments of causality to a system of compensation, and propose means of minimizing the detriments while promoting the benefits.

In Section II, documentation is provided of the role played by insurance in a number of legal contexts, particularly those contexts traditionally dominated by immunity, in order to illustrate the causality relationship between insurance and liability. Consequences of two-way causality are highlighted in Section III. The analysis is completed in Section IV with a summary of the research and conclusions drawn therefrom.

II. DOCUMENTATION OF TWO-WAY CAUSALITY

A. General

To test the hypothesis that two-way causality exists between insurance and liability, the authors researched the historical abrogation of various types of immunity. Immunity has been justified, at least in part, on the argument that it protects against depletion of certain funds.⁶ The availability of insurance weakens this argument. Thus, where immunity is abrogated because of the availability of insurance, the two-way causality phenomenon is demonstrated.⁷ Immunities of governments, of charitable organizations, and between family

5. The authors do not intend to assert, however, that use of liability insurance for compensation, as opposed to first-party coverage such as health insurance, is wasteful. See *infra* note 73 and accompanying text.

6. See, e.g., *Taylor v. Protestant Hosp. Ass'n*, 96 N.E. 1089 (Ohio 1911), in which the Ohio Supreme Court held that the defendant hospital's status as a charitable institution entitled it to immunity from tort liability stating, "[t]he funds intrusted to it are not to be diminished by such casualties. . . ." *Id.* at 1091. See also *Morehouse College v. Russell*, 109 Ga. App. 301, 136 S.E.2d 179 (1964).

7. The purpose of this article is to illustrate two-way causality between insurance and liability. Its purpose is not to discuss the abrogation of immunity. Hence, no attempt is made to present legal histories of abrogation. For discussion of such legal histories and the policies underlying abrogation of immunity, see generally W. PROSSER & W. P. KEETON, *THE LAW OF TORTS* §§ 122, 131 (5th ed. 1984).

members were considered. The development of liability in products and medical malpractice cases in the context of two-way causality was also considered.

Of the liabilities examined, greatest emphasis is given to liability resulting from the abrogation of intrafamilial immunity. Several reasons for such focus can be offered. First, intrafamilial liability is the area most developed of the three abrogated immunities studied.⁸ Second, the importance of insurance is clearly outlined in the pertinent case histories.⁹ Third, ramifications of abrogating intrafamilial immunity appear less extensive and worrisome than those related to abrogation of sovereign immunity or charitable immunity. The acts between family members directly affect each other and perhaps a few others. By contrast, acts of municipalities and charitable organizations have direct implications for a great many people. Yet, similarities exist because families have been considered quasi-governmental units.¹⁰ Thus, the advancement of family liability could be considered a forerunner of liability in other areas of traditional immunity. If intrafamilial liability is indeed a forerunner, the continued abrogation of governmental and charitable immunity can be expected. The theory of two-way causality itself indicates that abrogation will continue because insurance eliminates some of the justifications for immunity.¹¹ Thus, intrafamilial liability is presented first so that parallels may be extended to the other immunity areas.

8. *Turner v. Turner*, 304 N.W.2d 786, 788 n.1 (Iowa 1981), listed 27 states to precede Iowa in abrogating parental immunity, at least for actions outside the area of parental authority and discretion. Thus, liability appears to have become the majority rule. *See also* Annot., 6 A.L.R.4th 1066 (1981) (dealing with the question of parental liability for injury to an unemancipated child caused by a parent's negligence).

9. For a survey discussion of the cases relevant to this issue, see 8 WM. MITCHELL L. REV. 273, 280 (1982) ("The prevalence of homeowner's and renter's liability insurance is a factor in favor of the adoption of the reasonable parent standard").

10. *See, e.g., Barlow v. Iblings*, 156 N.W.2d 105, 110 (Iowa 1968) (parental immunity is supported because "the family acts as a quasi-governmental unit").

11. Courts often state that immunity is the exception rather than the rule. Hence, as public policy reasons for immunity are shown to be nonexistent or immaterial, liability will rule. *See, e.g., Self v. Self*, 58 Cal. 2d 683, 376 P.2d 65, 26 Cal. Rptr. 97 (1962). "[T]he general rule is and should be that, in the absence of statute or some compelling reason of public policy, where there is negligence proximately causing an injury, there should be liability. Immunity exists only by statute or by reason . . . of public policy." *Id.* at ___, 26 Cal. Rptr. at 101, 376 P.2d at 69.

B. Intrafamilial Liability

Various relationships between family members traditionally have been immune to liability for negligence. Justification for the immunity has been based on the following factors: 1) immunity promotes family harmony, 2) parental care, discipline, and control are maintained through immunity, 3) the family exchequer remains intact where immunity exists, 4) immunity discourages fraud and collusion.¹²

1. Interspousal Immunity.

Immunity between spouses was founded on rules of common law.¹³ These rules eliminated the individual legal identities of wives, thereby denying them property rights. Thus, a suit between spouses actually constituted a suit between the same legal entity. The Married Women's Acts,¹⁴ legislation that gave wives the right to own property and to have identities separate from their husbands, preempted the common law rules. Suits between spouses consequently constituted claims between the separate legal entities. As a result, the bulwark to liability was shattered.¹⁵ Furthermore, the existence of liability insurance made other justifications for immunity irrelevant.¹⁶

12. See *Hebel v. Hebel*, 435 P.2d 8, 11 (Alaska 1967).

13. See, e.g., *Immer v. Risko*, 56 N.J. 482, 267 A.2d 481 (1970). "At common law, a husband and wife were regarded as one, the legal assistance of the wife being merged with that of the husband. Thus, one spouse was precluded from maintaining an action against the other at law or equity for wrongful conduct whether intentional or negligent." *Id.* at ___, 267 A.2d at 482.

For a discussion of interspousal immunity, see W. PROSSER, *HANDBOOK OF THE LAW OF TORTS* § 83, at 554 (4th ed. 1971).

14. Married Women's Acts were typically adopted throughout the United States in order to eliminate civil inequities in the status of married women. See *Paiewonsky v. Paiewonsky*, 446 F.2d 178 (3d Cir. 1971). Typical of these acts are: COLO. REV. STAT. § 14-2-201 (1973); UTAH CODE ANN. § 30-2-4 (1953). See also *McCurdy, Torts Between Persons in Domestic Relation*, 43 HARV. L. REV. 1030 (1930).

15. For example, C. GREGORY, H. KALVERN & R. EPSTEIN, *CASES AND MATERIALS ON TORTS* 747 (3d ed. 1977), states: "The recognition of the wife's individual status could well have been sufficient to remove the original objection to suits between spouses, based as it was on the fictional entity."

16. "The presence of insurance militates against the possibility that the interspousal relationship will be disrupted since a recovery will in most cases be paid by the insurance carrier rather than by the defendant spouse." *Immer*, 56 N.J. at ___, 267 A.2d at 484-85.

2. Immunity Between Children and Parents.

Like interspousal immunity, immunity between children and parents is based on common law.¹⁷ Unlike interspousal immunity, however, abrogation of immunity between children and parents is not based on passage of governing laws. Rather, the impact of insurance availability has dominated the abrogation of immunity between parents and children.¹⁸ In particular, the prominence of insurance significantly weakens the argument that liability would destroy the family exchequer.¹⁹ Insurance also promotes equitable treatment between family members and unrelated parties, thereby encouraging family harmony²⁰ rather than family discord.

The evolution of the insurance argument in parent versus child suits provides a clear indication of the two-way causality relationship between insurance and liability. *Goller v. White*²¹ is often cited as the pathbreaking case in parental liability. The court in *Goller* held that:

the mere fact that the particular defendant-parent is protected by liability insurance does not enable his minor child to maintain an action when, in the absence of such insurance, he could not otherwise maintain it Nevertheless, we consider the wide prevalence of liability insurance in per-

17. Parental immunity apparently emerged from the Mississippi Supreme Court's decision in *Hewellette v. George*, 68 Miss. 703, 9 So. 885 (1891). For a discussion, see *Hebel*, 435 P.2d at 9-11.

18. *Goller v. White*, 20 Wis. 2d 402, 122 N.W.2d 193 (1963), was the seminal case abrogating parental immunity with respect to non-disciplinary activities. The court suggests that wide prevalence of insurance is a consideration in determining whether or not immunity should continue. *Id.* at 412, 122 N.W.2d at 197. Unlike wives, who held no individual identity, children carried separate legal personalities from their parents. Immunity for children was based on the justifications given in *Hebel*, not on fictional unity. The availability of insurance weakens these justifications, leaving little reason for immunity.

19. The court in *Ard v. Ard*, 414 So. 2d 1066 (Fla. 1982), citing many other cases, noted that "[w]hen recovery is allowed from an insurance policy the claimant will not force a depletion of the family assets at the expense of the other family members." *Id.* at 1068-69.

20. The court stated in *Hebel*:

It appears to us illogical to sanction property actions between unemancipated minors and their children; to allow an action if the child happens to be emancipated; to permit an action if the parent inflicts intentional harm upon the child . . . ; but on the other hand, to deny the unemancipated child redress for his personal injuries when caused by the negligence of a living parent.

Hebel, 435 P.2d at 15.

21. 20 Wis. 2d 402, 122 N.W.2d 193 (1963).

sonal injury actions a proper element to be considered in making the policy decision of whether to abrogate parental immunity in negligence actions [T]he existence of insurance tends to negate any possible disruption of family harmony and discipline.²²

When the *Goller* holding is compared with that of *Ard v. Ard*,²³ the expansion of the insurance argument is noticeable. The *Ard* court stated:

When recovery is allowed from an insurance policy the claimant will not force a depletion of the family assets at the expense of the other family members. As stated in *Sorensen*, rather than a source of disharmony, the action is more likely to ease the financial difficulties stemming from the injuries.²⁴

The *Goller* court considered the availability of insurance a counter to arguments favoring immunity. The *Ard* court, by contrast, considered the use of insurance a desirable end in and of itself. *Ard* went beyond mere rejection of arguments for immunity; it used insurance as a justification for imposing liability.²⁵ Thus, the availability of insurance not only abrogated parental immunity, it has been used to create liability where otherwise there might have been none.²⁶

22. *Id.* at 412, 122 N.W.2d at 197.

23. 414 So. 2d 1066.

24. *Id.* at 1068-69.

25. The authors shepardized *Goller* and found some interesting trends. The early cases which followed *Goller* considered insurance availability as one argument in favor of abrogating some parental immunity. *See, e.g., Plumley v. Klein*, 388 Mich. 1, —, 199 N.W.2d 169, 172 (1972). Availability of insurance, however, was not the dominant theme of these actions. By way of contrast, later cases limited liability to the extent of liability insurance indicating the weight placed on the existence of insurance in deciding parental negligence cases. *See, e.g., Sorensen v. Sorensen*, 369 Mass. 350, 353, 339 N.E.2d 907, 909 (1975).

26. In studying the spread of intrafamilial liability from state to state, the authors noted a time pattern. A positive correlation between passage of automobile no-fault laws and abrogation of intrafamily immunity seems to exist. This observation lends further support to the hypothesis of two-way causality. Publicity regarding the no-fault legislation may well have reminded judges that insurance is available and ought to be used. *See, e.g., Anderson v. Stream*, 295 N.W.2d 595 (Minn. 1980). This opinion alludes to the importance of mandatory insurance in determining liability in automobile accidents. In a footnote, the court stated: "The argument is made that heavy reliance cannot be placed on homeowner's and renter's liability insurance because it is not required by statute, as is motor vehicle insurance." *Id.* at 600 n.7.

Massachusetts passed the first automobile no-fault law in 1971. The courts abrogated intrafamilial immunity in *Sorensen*, 369 Mass. 350, 339 N.E.2d 907. Florida passed a no-fault law in 1972 and abrogated immunity in *Ard v. Ard*, 414 So. 2d 1066 (Fla. 1982). New Jersey, Hawaii, Michigan and New York passed no-fault laws in

C. Charitable Immunity

While intrafamilial immunity appears to have been a product of the American judicial system,²⁷ charitable immunity can be traced to the English case of *Feoffees of Heriot's Hospital v. Ross*.²⁸ This case, and those to follow it, justified immunity as a mechanism to protect a charity's trust funds.²⁹ Payment to third party litigants was considered an improper use of funds by grantors.³⁰ In the absence of immunity, it was argued that grantors would decide to place their monies elsewhere.³¹

The logic of immunity weakened as insurance became widely available. The shift began in those cases where insurance was known to exist. Courts used the rationale that where insurance had been purchased, no diversion of trust funds would occur by holding the charity liable. For instance, in *Wendt v. Servite Fathers*,³² the court ruled:

If the absolute immunity enunciated in the *Piper* case were to prevail, it would seem a sheer waste of money for a charitable corporation to purchase insurance protection. We hold that where insurance exists and provides a fund from which

1973. Immunity was abrogated in *France v. A.P.A. Transp. Corp.*, 56 N.J. 500, 267 A.2d 490 (1970); *Petersen v. City and County of Honolulu*, 51 Hawaii 484, 462 P.2d 1007 (1969); *Plumley v. Klein*, 388 Mich. 1, 199 N.W.2d 169 (1972); *Nolechek v. Gersuale*, 46 N.Y.2d 332, 413 N.Y.S.2d 340, 385 N.E.2d 1268 (1978). No-fault laws were passed by the Kansas, Nevada and Pennsylvania legislatures in 1974. Immunity in Kansas was abrogated in *Nocktonik v. Nocktonik*, 227 Kan. 758, 611 P.2d 135 (1980). Nevada courts abrogated immunity in *Rupert v. Stienne*, 90 Nev. 397, 528 P.2d 1013 (1974). Pennsylvania courts did the same in *Falco v. Pados*, 444 Pa. 372, 282 A.2d 351 (1971). Kentucky and Minnesota followed in 1975 with no-fault laws. They abrogated immunity in *Rigdon v. Rigdon*, 465 S.W.2d 921 (Ky. Ct. App. 1971) and *Anderson v. Stream*, 295 N.W.2d 595 (Minn. 1980). Finally, no-fault became law in 1976 in North Dakota. The courts there abrogated immunity in *Nuelle v. Wells*, 154 N.W.2d 364 (N.D. 1967). This list of no-fault laws was taken from Landes, *Insurance, Liability, and Accidents: A Theoretical and Empirical Investigation of the Effect of No-Fault Accidents*, 26 J. OF L. & ECON. 49 (1982).

27. See Thompson, *Intrafamily Immunity: A Vanishing Myth?*, 32 FED. INS. COUNS. Q. 289 (1982).

28. 8 Eng. Rep. 1508 (1846).

29. See, e.g., *Parks v. Northwestern Univ.*, 218 Ill. 381, ___, 75 N.E. 991, 993 (1905).

30. *Id.*

31. *Id.*

32. 332 Ill. App. 618, 76 N.E.2d 342 (1947).

tort liability may be collected so as not to impair the trust fund, the defense of immunity is not available.³³

Courts deciding cases post-*Wendt*, however, recognized the inherent disincentive to purchase insurance when liability rested on the availability of insurance protection. Further, they recognized that such a ruling "permits [charities] to determine whether or not they will be liable."³⁴ In response, many courts ceased determination of liability on the amount of insurance purchased. Instead, they considered the general availability of insurance sufficient to abrogate immunity, whether or not the defendant charity actually purchased coverage.³⁵

D. Sovereign Immunity

Justification for sovereign immunity followed somewhat similar reasoning as that proffered in support of charitable immunity. "Thus it was said that the immunity of municipal corporations was necessary in order to prevent the diversion of public assets towards private gain."³⁶ Willingness to abrogate sovereign or municipal immunity, however, appears to have been more restrained than that demonstrated in abrogating intrafamily and charitable immunity.

Evidence of this restraint is the statutory foundation of municipal liability and immunity.³⁷ The amount of insurance, which a municipality is permitted to purchase, is often statu-

33. *Id.* at 634, 76 N.E.2d at 349.

34. *Darling v. Charleston Community Memorial Hosp.*, 33 Ill. 2d 326, ___, 211 N.E.2d 253, 260 (1965).

35. *Id.* See also *Morehouse College v. Russell*, 109 Ga. App. 301, 136 S.E.2d 179 (1964), in which the Georgia Court of Appeals held that a petition alleging negligence against a charitable institution properly included reference to a policy of liability insurance carried by the institution. However, recovery would be limited to noncharitable income or assets. *Id.* at ___, 136 S.E.2d at 190-92.

36. C. GREGORY, H. KALVERN & R. EPSTEIN, *supra* note 15, at 750.

37. The opinion of *Bofyil v. State*, 44 Mich. App. 118, 205 N.W.2d 222 (1972), provides an example. The court cites Michigan cases establishing the doctrine of sovereign immunity in common law. These cases were overruled in 1943 with the enactment of 1943 Mich. Pub. Acts 237, which "waived sovereign immunity from liability on the part of the state in all actions." 44 Mich. App. at 126-27, 205 N.W.2d at 227. Two years later, with the passage of 1945 Mich. Pub. Acts 87, sovereign immunity was reestablished except with respect to the ownership or operation of a motor vehicle. *Id.* at 127, 205 N.W.2d at 227-28.

torily determined.³⁸ Liability, in turn, may be statutorily limited to the amount of insurance the municipality may purchase.³⁹ Statutory insurance frameworks create peculiar situations for municipalities. Municipalities consist of and exist for "the people." Thus, it is the people who decide the responsibilities of municipalities through laws enacted by elected officials. To sue a municipality beyond its statutorily mandated responsibilities is in essence to sue its people. Thus, a claim against the municipality is actually a claim against oneself. This scenario closely parallels the historical underpinnings of interspousal immunity. As was true with the abrogation of immunity between spouses, enactment of laws played a part in the abrogation of sovereign immunity.⁴⁰ Yet, while municipalities continue to enjoy some protection from liability, the walls of protection have been weakened.

It has long been accepted that sovereign immunity protected only those activities imbued in governmental, as opposed to proprietary, functions.⁴¹ As a result, much of the debate over municipal liability during the past 140 years has focused on the delineation of governmental and proprietary functions.⁴² However, in more recent days, readily available insurance has been the basis of the argument for total abrogation. For instance, in *Molitor v. Kaneland Community Unit District No. 302*,⁴³ the court stated that: "[i]f tax funds can properly be spent to pay premiums on liability insurance,

38. See generally Annot., 71 A.L.R.3D 6 (1976).

39. See, e.g., 47 OKLA. STAT. ANN. tit. 47, § 157.1 (West 1984), which authorizes the purchase of liability insurance by various municipal organizations, and limits liability to the maximum insurance the municipality may purchase.

40. See, e.g., *Pajewski v. Perry*, 363 A.2d 429 (Del. Super. Ct. 1976):

[I]n Delaware sovereign immunity is based on a Constitutional provision which the Courts applied and criticized repeatedly before 1968. (And since then, as well.) The Courts urged the Legislature to do what Justice Wolcott called "common justice" by a statute eliminating the doctrine and making the State answer for its faults in a court of law. Against the back-ground, it seems clear to us that the Insurance Act embodied in 18 Del. C. ch. 65 was the response made by the General Assembly to the cases.

Id. at 435.

41. See, e.g., *Bailey v. City of New York*, 3 Hill 531 (N.Y. 1842).

42. See Fuller & Casner, *Municipal Tort Liability in Operation*, 54 HARV. L. REV. 437 (1941).

43. 18 Ill. 2d 11, 163 N.E.2d 89 (1959).

there seems to be no good reason why they cannot be spent to pay the liability itself in the absence of insurance."⁴⁴

The relationship between municipal liability and the availability of insurance is difficult to ascertain. Often the extent of liability is determined by the amount of insurance coverage purchased.⁴⁵ This is misleading, however, because the amount of insurance purchased is often statutorily specified. The limit of liability may also be statutorily specified so that it coincides with insurance coverage.⁴⁶

Yet, despite the problems encountered in clearly recognizing the two-way causality between municipal liability and insurance availability, arguments levied in support of liability appear to follow insurance principles.⁴⁷ That is, the ability to spread costs and pool experience is an important factor in abrogating sovereign immunity.⁴⁸

The next section of this article will further consider the argument of two-way causality and insurance principles by describing their relevance in establishing liability of product manufacturers and providers of medical care. The premise is that while the mere availability of insurance may not be determinative in establishing municipal liability, products liability, and medical malpractice liability, the existence of insurance-like circumstances is essential. The relevance of insurance-like circumstances in products and medical malpractice cases is presented below.

E. Products and Medical Malpractice Liability

Dean Prosser disagrees with the hypothesis of this research. In his treatise on torts, he points to the many signifi-

44. *Id.* at 23, 163 N.E.2d at 95.

45. *Jeffrey v. Johnson*, 23 Ohio Misc. 338, ___, 260 N.E.2d 627, 638 (1970) (where county hospital trustees purchase a liability policy, sovereign immunity is impliedly waived to the extent of policy coverage).

46. "[T]he statutory plan . . . contemplates a waiver of immunity co-extensive with the insurance program, which shall cover 'any type of risk to which the State may be exposed'." *Pajewski*, 363 A.2d at 436 (citation omitted).

47. *See, e.g., Molitor*, 18 Ill. 2d at ___, 163 N.E.2d at 95 ("The public's willingness to stand up and pay the costs of its enterprises carried out through municipal corporations is no less than its insistence that individuals and groups pay the cost of their enterprise.")

48. For further discussion of the characteristics of insurance, see *infra* text accompanying notes 58-74.

cant products cases that have been decided in plaintiffs' favor without direct reference to insurance.⁴⁹ Prosser considers the omission glaring as judges bolster their opinions with nearly every conceivable justification to hold the manufacturer liable, nearly every justification, that is, except for the availability of insurance.

Prosser's point is well taken, but may be somewhat off target. Consider the language of Traynor's noted opinion in *Escola v. Coca-Cola Bottling Co.*,⁵⁰ for instance:

[P]ublic policy demands that responsibility be fixed wherever it will most effectively reduce the hazards to life and health inherent in defective products that reach the market. It is evident that the manufacturer can anticipate some hazards and guard against the recurrence of others, as the public cannot. . . . The cost of an injury and the loss of time or health may be an overwhelming misfortune to the person injured, and a needless one, for the risk of injury can be insured by the manufacturer and distributed among the public as a cost of doing business.⁵¹

These words are essentially an exposition on the virtues of insurance. Even if Judge Traynor had omitted the word "insured," the meaning would be equally as clear. The judge's implication that the manufacturer can anticipate some hazards is the idea of predictability. Further, to suggest that the manufacturer can "distribute among the public as a cost of doing business" is to intimate the spreading concept of insurance.⁵² Thus, Prosser's claim that insurance availability has had little impact on broadening liability seems superficial. These component parts of insurance, pooling and spreading, may well have the same effect as the insurance product as a whole.

Parallel arguments hold true for medical malpractice. Even though liability in malpractice cases has not been expressly predicated on the availability of insurance, "insurance-like circumstances" are available. The hospital has control

49. W. PROSSER, HANDBOOK OF THE LAW OF TORTS § 83, at 553-56 (4th ed. 1971).

50. 24 Cal. 2d 453, 150 P.2d 436 (1944).

51. *Id.* at ___, 150 P.2d at 440-41.

52. For further discussion of these characteristics, see *infra* text accompanying notes 60 to 72.

over the risks of medical care, treats many patients so that predictability of loss is fairly accurate, and is able to pass along the costs of losses to the total group receiving services.

A complicating aspect of hospital or medical malpractice is its relationship to charitable and sovereign immunity. Many hospitals are owned and operated by charities or municipalities. Thus, a patient-victim must circumvent traditional barriers of charitable and municipal immunity before pursuing medical malpractice claims against hospitals. This first obstacle has been lessened in recent years; by 1982, over thirty jurisdictions had rejected immunity of charitable hospitals.⁵³ The relevance of insurance to hospital or medical malpractice liability has been stated as follows:

[T]he courts generally express the view that there is no valid reason why losses suffered by an individual through a charitable hospital's wrongdoing should not be borne by all society through insurance or similar loss distribution, thus dismissing the notion that the charity's resources would be depleted by imposing liability.⁵⁴

A more recent example of judicial reliance on insurance principles appears in *Helling v. Carey*,⁵⁵ in which the Washington Supreme Court ruled as follows:

In applying strict liability there are many situations where it is imposed for conduct which can be defined with sufficient precision to insure that application of a strict liability principle will not produce miscarriages of justice in a substantial number of cases. If the activity involved is one which can be defined with sufficient precision, that definition can serve as an accounting unit to which the costs of the activity may be allocated with some certainty and precision. With this possible, strict liability serves a compensatory function in situations where the defendant is, through the use of insurance, the financially more responsible person.⁵⁶

53. 2 B. LOUISELL & H. WILLIAMS, *MEDICAL MALPRACTICE* ¶ 17.04 (1983).

54. *Id.* at ¶ 17.06, at 17-13. See also *Mississippi Baptist Hosp. v. Holmes*, 214 Miss. 906, 55 So. 2d 142 (1951) (imposing full liability, the court emphasized the availability of liability insurance, and the practice by many people of carrying hospital insurance, thereby refuting the notion that funds would be diverted to other than charitable purposes).

55. 83 Wash. 2d 514, 519 P.2d 981 (1974) (Cutter, A.J., concurring).

56. *Id.* at ___, 519 P.2d at 984-85.

Again, the reader should note the insurance principles embedded in the opinion. Reference to an "accounting unit" brings to mind the spreading concept; "allocated with some certainty and precision" alludes to predictability.

III. IMPACT OF TWO-WAY CAUSALITY

The preceding section of this paper outlined various areas of law in which courts have considered the prevalence of insurance to be a significant factor in setting liability. The authors opine that this two-way causality evolved from perceived benefits of insurance. These perceived benefits arise out of two important insurance principles: (1) through the pooling of many similar exposures to loss, the predictability of loss improves; and (2) through premiums, financial burdens are spread among the masses exposed to loss rather than borne solely by the few actually experiencing loss.⁵⁷ The first principle is beneficial because predictability typically promotes efficient planning of resource use.⁵⁸ Benefits derive from the second principle in that the resulting financial burdens are tolerable to most, if not all, of those exposed to loss.⁵⁹ Considering the desirability of insurance, public policy naturally gives preference to its use. Thus, where liability insurance exists, one might argue that liability *ought* to apply. Predictability and spreading each affect two-way causality. To understand their effects, one should possess some knowledge of the process by which each principle functions. The following sections discuss these functions.

57. While many definitions of insurance exist, two consistently included elements of these definitions are that "insurance is a method which *reduces risk* by a *transfer* and *combination* (or 'pooling') of uncertainty in regard to financial loss." See generally D. BICKELHAUPT, *GENERAL INSURANCE* 27 (10th ed. 1979) (emphasis in original).

58. Consider preparation for trial. The legal representative who knows the case in minute detail, has had previous experience with the judge, and knows the trial pattern of the opposing lawyer can better plan a course of action than if some or all of these elements were absent. Similarly, the insurer who has predictive information is better able to pinpoint premium requirements for its future obligations and use those premiums more efficiently than is one without such information.

59. Although most consumers complain of outrageously high insurance premiums, an annual charge of \$500 (or whatever one must pay) is likely affordable. The \$50,000 (or whatever amount of coverage exists) against which the insurance provides protection would pose a troublesome burden to most drivers. Thus, all insureds pay affordable premiums (losses) to avoid catastrophic responsibilities.

A. Predictability

First, consider predictability. Insurance is based on a statistical relationship termed the law of large numbers.⁶⁰ Basically, this law holds that as the number of units in a group increases, the predictability of outcomes to that group improves. Insurers group the experience of a large number of policy holders, improving the predictability for the whole over the sum of the individual estimates.⁶¹

Use of the law of large numbers for insurance predictions is predicated on certain assumptions. First, the information used to estimate outcomes must be representative of the period of prediction. Second, exposures⁶² must be independent and homogeneous.⁶³ Third, outcomes must be random, fortuitous or accidental.⁶⁴

60. See generally M. GREENE & O. SERBEIN, *RISK MANAGEMENT: TEXT AND CASES* (2nd ed. 1983). "The law of large numbers, stated nontechnically, says that as the number of events increases, the variation in the proportion of actual outcomes from expected out-comes tends to decrease constantly and approaches zero." *Id.* at 25-26 (emphasis in original).

61. For example, consider 1,000 realtors, all of whom own 1,000 homes. Assume each has the same probability of loss, one home. Also assume that the probability of loss to each home is unaffected by loss to any of the other homes. If each realtor experiences one loss, except for one of the realtors who has two, that unlucky realtor had an increased loss of 100%. If, instead, the realtors agreed to share each other's losses, the group would experience 1,001 losses, or an increase of only .1% over their expectation. Thus, the group's risk is less than that of the sum of the individuals.

This same argument can be made more formally. Assume a binomial distribution. The probability of loss, "p" is .001; the probability of no loss, "q" is .999; and, the number of units, "n" is 1,000 to each of the 1,000 realtors. Then:

$$\begin{aligned} X &= \text{mean loss} = p \cdot n = .001(1,000) = 1 \\ s &= \text{standard deviation} = (p \cdot q \cdot n)^{1/2} = [(.001)(.999)(1,000)]^{1/2} = 1 \\ CV &= \text{coefficient of variation} = \text{risk} = s/X = 1/1 = 1 \end{aligned}$$

If the realtors group their experience, $n = 1,000,000$

$$\begin{aligned} X &= .001(1,000,000) = 1,000 \\ s &= [(.001)(.999)(1,000,000)]^{1/2} = 31.61 \\ CV &= 31.61/1,000 = .03161 \end{aligned}$$

Thus, risk is reduced because the coefficient of variation is lower for the group than for each individual realtor.

62. An exposure is an opportunity for loss, such as ownership of a home, boat, etc. Insurance protects a policyholder against such a loss. Liability insurance, specifically, protects against the loss of financial assets because of responsibility for harm caused someone else.

63. See generally R. HOLTOM, *UNDERWRITING: PRINCIPLES AND PRACTICES* 137-68 (1973).

64. See generally *id.* at 96; J. ATHEARN & S. T. PRITCHETT, *RISK AND INSURANCE* 96 (5th ed. 1984).

Two-way causality makes the existence of these characteristics questionable. First, most insurers rely on past loss experience to predict future losses. As courts shift the basis of liability, experience fails to be indicative of future losses. Insurers are forced to rely on subjective guesses regarding legal rulings rather than objective statistical information. The result is less quantifiable precision and planning.⁶⁵

Second, as courts abrogate immunity, the probability of liability to any previously immune party is increased. The abrogation does not only apply to the defendant in a particular case. For example, liability imposed on one municipality increases the probability of liability on the part of all others. Two-way causality in this way eliminates some degree of independence among exposure units.⁶⁶

Likewise, two-way causality may render some loss of randomness in outcome. A random event is one that is unknown, but which is determined by a probability distribution.⁶⁷ In insurance terminology, "random" indicates an event unaffected and uncontrolled by the policyholder. If one considers two-way causality, however, the policyholder can affect whether liability will result, regardless of whether the underlying event is controlled or affected in any way. Insurance will not affect the happening of a loss; it affects who pays for the loss.⁶⁸

In sum, two-way causality weakens the application of the law of large numbers for predictability of insured losses. As predictability worsens, insurers are forced to raise premiums to cover potential loss volatility. Insurers thus fail in their risk-reducing function.

65. In essence, insurers guess what the legal environment will be in the covered period. Judgmental estimates do not quantify underlying probabilities, such as an estimate of the next appearance of Halley's comet. As a result, precision is impossible.

66. Independence is fairly easy to understand in a property insurance example. Property insurers avoid selling coverage concentrated in a single geographical area. They do so to reduce the probability of one event causing harm to a majority of policyholders. Thus, while the probability of loss to a house is increased if a neighboring house is on fire, a house located 1,000 miles away is *independent* of the event. The probability of loss to this third house is unaffected by the ensuing fire.

67. See generally E. FAMA, FOUNDATIONS OF FINANCE (1976).

68. If liability is determined by the existence of insurance, the parties involved determine their liability by deciding whether to buy insurance and for how much. See, e.g., *supra*, text accompanying note 34.

B. Spreading

Once predictability is adversely affected, the losses to be spread are increased. The increase derives from two sources. First, an additional risk charge is required to cover the lack of predictability.⁶⁹ Second, losses and expenses are greater, requiring larger intake per policyholder for payment. If the increase is substantial, premiums may become unaffordable.⁷⁰ If premiums are unaffordable, coverage will not be purchased.⁷¹ If insurance is not purchased, the rationale for considering insurance availability in determining liability in the first place is eliminated. Thus, those exposed to loss find themselves back where they began, but now must respond to increased liability without insurance.⁷²

C. Additional Effects

In addition, consider the result when liability is limited to the amount of insurance held by the defendant. A rational person would decide against purchasing insurance under such a rule. Hence, coverage would likely be required. In a sense, a program of mandatory insurance, coupled with broader definitions of liability that benefit injured persons, is a program of socialized medicine. Unlike a direct socialized medicine pro-

69. An estimated loss value has a probability of precise accuracy near zero; insurers determine a range in which losses are expected to fall. In order to pay for the losses that fall above the estimate, insurers add a "risk charge" to premiums. The less predictable an outcome, the larger is the range of expected losses, requiring a higher risk charge.

70. Insurance scholars generally consider premiums to be "unaffordable" when they represent a high percentage of the limit of liability. See, e.g., R. MEHR & E. CAMMACK, *PRINCIPLES OF INSURANCE* 75 (6th ed. 1976).

71. Insurance scholars tie the problem of unaffordable premiums to adverse selection. Adverse selection occurs when "people who obtain insurance tend to be those who need it most — those with greater probability of loss than the average." G. REJDA, *PRINCIPLES OF INSURANCE* 28 (1982). As insurance premiums represent higher and higher percentages of protection provided, the people willing to pay the premiums are those who need insurance the most. Adverse selection, in turn, forces insurers to raise premiums, and the cycle continues.

72. For example, consider the conclusion of a 1976 Special Committee on Public Liability, formed by the Wisconsin Legislature to study the status of municipal liability in the state: "The conclusions of the committee were that local government units' immunity to liability was disappearing, liability insurance was either difficult to purchase or was available only at a high cost . . ." OFFICE OF THE COMMISSIONER OF INSURANCE, *AN ANALYSIS OF THE AVAILABILITY AND COST OF LIABILITY INSURANCE COVERAGE FOR WISCONSIN LOCAL GOVERNMENT*, at 2 (1979) (by Susan Mitchell, Commissioner of Insurance).

gram, however, liability involves waste in assigning responsibility and determining benefits. The waste associated with liability is the cost of litigation. Proceeds from liability premiums in large part provide for litigation costs rather than compensation for loss. This fact has been a key argument used by proponents of no-fault automobile insurance plans.⁷³

IV. SUMMARY AND CONCLUSIONS

The hypothesis of this research is that liability determination and insurance availability are dependent in a relationship of two-way causality. Section II of this piece illustrates various circumstances in which liability was based, in part, on the existence of insurance, or insurance-like, protection. The demand for, and hence existence of, insurance protection is in turn increased by the determination of liability.

The authors intend, however, for the contribution of this research to stem from Section III. In Section III, the circular, and ultimately detrimental, reasoning that results in two-way causality is demonstrated. One not well versed in the underlying principles of insurance would easily miss the problems of circularity.

A conclusion that could be drawn from this research is that insufficient understanding of insurance, and its legitimate purposes, exists on the part of lawyers, judges, and consumers. In order to remedy this problem, perhaps law students should be required to take a course in law and economics. Such action should be taken by all law schools.

A second conclusion is that the entire tort system requires critical scrutiny. Due to the extent of liability exposure, the size of the tort system may be unmanageable. A practical response may be to undertake a major overhaul of the current tort system.⁷⁴ Passage of workers' compensation acts early in this century exemplifies precedence for such a radical response.

73. See, e.g., U.S. DEP'T OF TRANSP., MOTOR VEHICLE CRASH LOSSES AND THEIR COMPENSATION IN THE UNITED STATES, A REPORT TO THE CONGRESS AND TO THE PRESIDENT (1971).

74. See 13 J.LEGAL STUD. (1984). The entire volume is devoted to catastrophic personal injuries. It is derived from a conference sponsored by The Hoover Institution.

Finally, the authors suggest some effort be made to educate the general public about the meaning of "liability." A consumer who understands when and why a producer will be held liable for some event will be a more efficient actor in the marketplace. Discord and waste through misperception can be reduced when information is provided.