II. PROXIMATE CAUSE AND SUICIDE LEVELS

In economic terms, the change in the law of proximate cause means higher expected cost to doctors. We hypothesize that the increased liability impacts doctors' behavior in two possible ways. Professor Vars hypothesizes that the expected increase in liability will result in a *positive* increase in the level of care (i.e., higher quality of service). In contrast, Professor Dillbary hypothesizes that the higher expected liability could *negatively* impact care and activity levels (i.e., the result could be poorer quality and less services offered). Part II.A. below discusses the literature on the economic function of the law of causation. This literature focuses on the role of proximate cause on parties' activity and care levels. Part II.B. discusses the Vars and Dillbary hypotheses in light of the theory. Part III tests the hypotheses.

A. The Economic Function of Causation

The economic role of the causation analysis has been the subject of an ongoing debate. Some, like Landes, Posner, and Calabresi, thought that "the idea of causation can largely be dispensed with."[41] For them, an injurer should be considered a "cause" of the accident if she is "the lower-cost avoider of it but not otherwise."[42] Others have recognized that limiting the scope of liability is important to achieve optimal care and activity levels.[43]

1. Actual Causation

To understand the effect of proximate cause on the parties' behavior and why only a subset of actual causes can give rise to liability, we need to first understand the economic role of actual causation. Actual causation determines whether the act in question was a necessary link in a set of events that resulted in an injury.[44] In the simple one-injurer-one-victim setting, courts often use the but-for test to determine

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41. WILLIAM M. LANDES & RICHARD A. POSNER, THE ECONOMIC STRUCTURE OF TORT LAW 229 (1987); *see* MICHAEL FAURE, TORT LAW AND ECONOMICS 84 (2009) ("The original economic theory of tort law deliberately rejected an explicit role for a causation doctrine in determining liability."); Guido Calabresi, *Concerning Cause and the Law of Torts: An Essay for Harry Kalven, Jr.*, 43 U. CHI. L. REV. 69, 85 (1975) ("One could do away with the *but for* test and employ other methods" to determine "whether avoidance is worthwhile."); Richard A. Epstein, *A Theory of Strict Liability*, 2 J. LEGAL STUD. 151, 165 (1973) ("Both Calabresi and Coase, then, share the belief that the concept of causation should not, because it cannot, play any role in the determination of liability for harms that have occurred."); William M. Landes & Richard A. Posner, *Causation in Tort Law: An Economic Approach*, 12 J. LEGAL STUD. 109, 124–25 (1983) (discussing the rationale for alternative liability and noting that "we can analyze this type of case using a modified Hand formula without explicitly discussing causation").

42. LANDES & POSNER, *supra* note 41.

43. *See infra* notes 47, 50, 60 and *infra* note 69 and accompanying text.

44. W. PAGE KEETON, DAN B. DOBBS, ROBERT E. KEETON & DAVID G. OWEN., PROSSER AND KEETON ON THE LAW OF TORTS § 41, at 263–64 (5th ed. 1984) [hereinafter PROSSER AND KEETON]; *see also* DAN B. DOBBS, THE LAW OF TORTS § 167, at 407–09, § 178, at 409 (2000).

whether the defendant's behavior was the actual cause of the harm.[45] The test asks whether but-for the defendant's tortious behavior the victim would not have been harmed.[46] Shavell explains that this test incentivizes actors to take the optimal level of care.[47] Suppose, for example, driving carefully comes with an expected liability of $60, but that driving carelessly increases the expected liability to $100. Taking care (e.g., slowing down) would reduce the expected cost of the accident by $40 (100-60). Thus, if the cost of taking care is less than $40, for example if it is $10, taking care is socially desirable. It will reduce the expected cost of driving from $100 if the driver fails to take care to $70 (60+10) if she does. If the driver is liable for the harm she will invest $10 to reduce her expected cost by $30 (100-70). On the other hand, if the driver is not liable for the cost of the accident she will not take care.[48] Why invest $10 to avoid an accident for which she is not liable? Holding an injurer liable for the accident she *actually caused* thus incentivizes her to take the right level of care.

Interestingly, holding the driver liable for losses she did *not* actually cause does not impact care levels negatively. To illustrate this point, suppose that in the case of a car accident the driver is liable for the losses she inflicted and, in addition, for a $200 loss that has nothing to do with the accident. If the driver takes care, she can expect to pay $270 (60+10+200). If she does not take care, she will pay more: $300 (200+100). Taking care will thus reduce the driver's expected cost by $30 (300-270)—the same amount that would be reduced if she were not liable for the arbitrary loss. The conclusion is that actors will take optimal care even if they are subject to excessive liability—that is, even if they are liable for harms they did not actually cause.[49]

This last insight is important to understanding the impact of excessive liability on activity levels. In a perfectly operating negligence system, imposing "too much" liability should *not* impact activity levels. Because the actors will take the optimal level of care, they will avoid liability altogether. They will thus be indifferent as to the "crushing liability" imposed on those who act negligently. The tort system, however, is far from perfect. Its application is subject to errors and mistakes. This means that an actor who took the proper level of care may nevertheless be held liable. The literature refers to such mistakes as "pockets" of strict liability.[50] In an imperfect system,

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45. DOBBS, *supra* note 44, § 168, at 400–10; PROSSER AND KEETON, *supra* note 44, § 41, at 265–66. For an analysis of actual causation doctrines in cases involving multiple tortfeasors, see J. Shahar Dillbary, *Causation Actually*, 51 GA. L. REV. 1 (2016).

46. DOBBS, *supra* note 44; PROSSER AND KEETON, *supra* note 44; Dillbary, *supra* note 45, at 30.

47. STEVEN SHAVELL, ECONOMIC ANALYSIS OF ACCIDENT LAW 108 (1987).

48. For simplicity, this and the following examples ignore other-regarding-preferences or other factors that may influence the actors' decisions.

49. LANDES & POSNER, *supra* note 41, at 236. The authors explain, however, that under certain conditions holding one liable for an accident she cannot prevent may result in excessive use of care. *Id.*; *see also* FAURE, *supra* note 41, at 89 ("Whether the scope of liability is optimally restricted . . . or whether the scope of liability is too broad or unrestricted, the injurer will take the due level of care (assumed to be set optimally).").

50. *See, e.g.*, LANDES & POSNER, *supra* note 41, at 128 (noting that in certain contexts, the "reasonable-man rule constitutes a pocket of strict liability . . . in negligence law"); *see*

excessive liability may adversely impact activity levels.[51] To see why, suppose that in the previous example the driver benefits $90 from the activity. If the driver is liable only for the losses actually caused by her accident, she will engage in the activity and carefully so. The reason is that driving with care comes at a cost of $70 (60+10), which means that the driver can expect a net gain of $20 (90-70). But if the driver is liable for losses she did not actually cause (e.g., because of an error), she may quit driving. With an expected loss of $180 (90-270) if she takes care or worse if she does not (90-300), forgoing the activity becomes the preferable option. The result is suboptimal activity levels.

2. Proximate Cause

The proximate cause analysis recognizes that not all but-for acts should give rise to liability.[52] Only types of harm that were foreseeable from the defendant's conduct can give rise to liability.[53] Shavell and his followers explain that the foreseeability requirement in the proximate cause analysis serves a similar function as actual causation.[54] It imposes enough liability to incentivize the actors to take the appropriate level of care, but not too much liability that would drive them away from beneficial activities. Consider, for example, the mechanic who failed to properly service the brakes of the plaintiff's car. Suppose that because of the mechanic's failure the car sped up and reached a point at the road where it was struck by lightning. One could argue that the mechanic is the but-for reason of the victim's harm. Indeed, but-for the mechanic's failure the victim would not have been injured. But the law exempts the mechanic from liability. The reason is that holding the mechanic liable for harms she cannot foresee will not incentivize her

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also infra notes 62–64. Under a strict liability regime, a nonnegligent actor will be held liable for harms she actually caused. *See* THOMAS J. MICELI, THE ECONOMICS APPROACH OF LAW 59–61 (2004); Marcel Kahan, *Causation and Incentives To Take Care Under the Negligence Rule*, 18 J. LEGAL STUD. 427, 428 n.4 (1989).

51. LANDES & POSNER, *supra* note 41, at 237.

52. DOBBS, *supra* note 44, § 180, at 443; RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 213 (9th ed. 2014); SHAVELL, *supra* note 47, at 110–114; Landes & Posner, *supra* note 41, at 119.

53. SHAVELL, *supra* note 47, at 110–114 (referring to unforeseeable occurrences as "co-incidental accidents"); Landes & Posner, *supra* note 41, at 120 (noting that "there is no need to invoke concepts of foreseeability to explain the result; [such cases] could just as easily [be] decided on the ground that the . . . wrongful conduct . . . did not increase the probability of injury"); Steven Shavell, *An Analysis of Causation and the Scope of Liability in the Law of Torts*, 9 J. LEGAL STUD. 463, 464 (1980).

54. SHAVELL, *supra* note 47, at 112 (explaining that both cause in fact and proximate cause restrict the scope of liability and help incentivize actors to take the optimal level of care); Landes & Posner, *supra* note 41, at 120, 134 (concluding that the cause-in-fact and proximate cause doctrines serve a similar economic function); Shavell, *supra* note 53, 465–66 ("[T]he principles of causation in fact, of harm occurring within the normal risk created by an act, etc. implicitly serve to maximize social welfare and thus *ought* to be employed to limit the scope of liability."). *Compare supra* note 49 and accompanying text *with infra* notes 56–63 and accompanying text (discussing the role of causation doctrines in curbing excessive liability).

to take additional care.[55] There is simply nothing the mechanic can do to *reduce the risk of a lightning strike*. By definition, only foreseeable harms can enter the mechanic's cost-benefit calculus.[56]

For these reasons, the law of proximate cause holds a defendant liable only for the type of harms the defendant could have reasonably foreseen as a risk of her conduct.[57] The law of proximate cause exempts from liability actors like the mechanic whose breaching behavior was superseded by an unforeseeable force such as lightning.[58] It holds liable only those whose acts or omissions increased the probability of an injury. That reasoning also underlies the "superseding intervening force" doctrine.[59]

Professor Mark Grady provides a different economic theory of proximate cause.[60] For Grady, the goal of the foreseeability requirement is to reduce the liability faced by injurers who may have been "efficiently negligent."[61] The idea here is that even when one takes the optimal level of care she may engage in an accident due to an "inadvertent lapse."[62] Imposing additional liability on such actors will be futile. It will not incentivize them to take more care (lapses aside, they already take the correct level of care).

However, excessive liability may cause actors to reduce their activity levels. The foreseeability requirement mitigates the suboptimal activity levels concern by exempting actors from "coincidental" harms. To see how, consider with Grady[63]

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55. *See* POSNER, *supra* note 52.

56. To illustrate, suppose that in the case of a brake failure the plaintiff will incur $100 in damage. Assume also that by investing $5 the mechanic can *reduce* the chance of brake failure from 12% to 2%. The mechanic will take care because at a cost of $5 she can reduce her expected liability by $10 ([12%–2%]x100). If the mechanic who fails to take proper care will also be liable for accidents due to lightning, the mechanic will take the same level of care. Taking care still reduces the expected cost of a foreseeable harm by $10 (from $12 to $2).

57. DOBBS, *supra* note 44, § 180, at 444.

58. LANDES & POSNER, *supra* note 41, at 237–39; SHAVELL, *supra* note 47, at 110–12; Shavell, *supra* note 53, at 464, 482.

59. The mechanic example implies that to understand the incentive effects of liability one should consider the ability of actors to foresee harms. The incentive question hinges on whether the mechanic who failed to take care could foresee the type of harm that would result from a failure to properly service the brakes. After all, if the mechanic could not, a higher liability for such unforeseen harm would not deter her. Neither can she be considered the "best cost avoider." Even if she could avoid the harm at the lowest cost compared to others, she would not if she believes that the event she can avoid at a low cost will never materialize. *See* LANDES & POSNER, *supra* note 41, at 246–47; POSNER, *supra* note 52; Calabresi, *supra* note 41, at 93–100. For a summary of the literature, see FAURE, *supra* note 41, at 100–02. The imposition of liability may still be useful, for example, to *incentivize the actor to invest in information that would calibrate her beliefs*.

60. Mark F. Grady, *Proximate Cause Decoded*, 50 UCLA L. REV. 293, 298–300 (2002) [hereinafter Grady, *Proximate Cause*].

61. Mark F. Grady, *Efficient Negligence*, 87 GEO. L.J. 397, 400–02 (1998) [hereinafter Grady, *Efficient Negligence*].

62. *Id.*; Grady, *Proximate Cause*, *supra* note 60, at 294–95, 300.

63. Grady, *Efficient Negligence*, *supra* note 61, at 413.

cases where the same precaution can reduce foreseeable ("primary") and unforeseeable ("ancillary") risks. Assume that taking care to avoid the foreseeable risk was cost-justified. Suppose that the defendant did not take care and the foreseeable risk did not materialize, but the unforeseeable risk did. If the defendant had taken care—as she should—the accident would not have happened. Yet, the injurer will not be held liable for harms caused by an unforeseeable risk if the relationship between the breach and the harm is coincidental. The reason is that when an actor makes a spur-of-the-moment decision she may be efficiently negligent. After all, it would be impossible to avoid misjudgments even when one is taking the optimal level of care. Grady uses *Palsgraf* as an example to demonstrate this point.[64] In *Palsgraf*, even in retrospect, there is no connection between using additional care to help a passenger board a moving train and injuries caused by an explosion that caused a scale to fall and harm the victim. Conversely, the actor will be held liable if there was a systematic relationship between the untaken precaution and the type of harm (even if the harm was very unlikely).[65] Thus, when the defendant's failure to clean a barge that was used to carry oil allowed combustible gas to develop, the defendant was held liable although lightning caused the explosion.[66] The reason is that the actor was inefficiently negligent.

Grady explains that the superseding intervening factor (SIF) doctrine serves a similar function. It incentivizes a later wrongdoer to take cost-justified precautions to remedy a risk created by an earlier wrongdoer.[67] Consider, for example, a case in which Owen, the original wrongdoer, in breach of his duty, created a risk that the plaintiff will incur an expected harm of $100. Suppose that after Owen created the risk Laura, the last wrongdoer, can reduce it to $10 if she takes care at a cost of $60. Efficiency requires that Laura takes care (60<[100-10]), but Laura will not take care if she knows that liability will be split evenly between the wrongdoers (100/2<60). The law of proximate cause remedies this dilution problem[68] by exempting the original wrongdoer "in circumstances when it is desirable to prevent an erosion of the [last wrongdoer's] incentive to take precaution."[69] Thus, when a company left blasting caps that were later found by a boy who showed the caps to his mother, the

64. *Id.*

65. *Id.*

66. Johnson v. Kosmos Portland Cement Co., 64 F.2d 193, 195–96 (6th Cir. 1933); *see also* Grady, *Proximate Cause*, *supra* note 60, at 299 ("Whether the lightning was or was not likely made no difference. The issue was whether a systematic relationship existed between the explosion [i.e., the type of harm] and the defendant's allowing combustible gases to form [i.e., the untaken precaution].").

67. Mark F. Grady, *Proximate Cause and the Law of Negligence*, 69 IOWA L. REV. 363, 416–17 (1984) [hereinafter Grady, *Law of Negligence*] (explaining that the purpose of the SIF doctrine is "to increase the pecuniary incentive of persons other than the original wrongdoer, such as the last wrongdoer, to take precautions that compensate for the original wrongdoer's lack of care"); *see also* Grady, *Efficient Negligence*, *supra* note 61, at 409 (explaining that SIF incentivizes the last wrongdoer to correct a risky condition created by the original wrongdoers).

68. On the importance of dilution and anti-dilution mechanisms, see generally J. Shahar Dillbary, *Tortfest*, 80 U. CHI. L. REV. 953 (2013); Dillbary, *supra* note 45.

69. Grady, *Law of Negligence*, *supra* note 67, at 416.

company was exempted from liability.[70] The parent had an opportunity to remedy the risk by taking the caps from her son. Her failure was therefore considered a superseding intervening factor that broke the company's chain of causation.[71] By holding the parent liable for the entire amount, the SIF doctrine incentivizes her to invest more care (here, simply take the caps from her son).

The SIF doctrine could also *reduce* incentives to take care. Consider again the blasting caps case and assume now that it is foreseeable that an accident would occur if parents fail to take away the caps from their kids. Assume also that the factory can avoid the harm at a cost of $1 and that a parent at a cost of $10. Now, the factory is the lowest-cost avoider. Efficiency thus requires that the factory takes care, but the factory will not if it expects to be immune from liability. SIF mitigates this concern by refusing to cut off the original wrongdoer's liability when a subsequent intervening force is foreseeable. To use Grady's terminology, SIF relieves the original wrongdoer from liability when her negligence was efficient, but SIF holds the original wrongdoer liable if her negligence was inefficient. By doing so, the SIF doctrine "encourage[s the] original wrongdoer[] to continue their efficient activities."[72] In the above example, the factory will be held liable because the parent's negligence is foreseeable. The factory will thus invest $1 to avoid the $100, which is the efficient result.

Grady explains that courts will be inclined to determine that an intervening force was superseding if (a) the cost of care to the intervening force is cheaper than the original wrongdoer; (b) the original wrongdoer was less negligent; or (c) the intervening force was able to estimate that a risk arose from the original wrongdoer's negligence.[73] Conversely, courts will be inclined to hold the original wrongdoer liable if an intervening force will fail to take care against the risk the original wrongdoer created.[74] Liability will also be imposed on the original wrongdoer in cases where she can be deterred and avoid the mishap but the last wrongdoer cannot.[75] Examples are when the last wrongdoer is insolvent or does not have the capacity to take care (e.g., children or the mentally ill). The classic example is a negligent entrustment case. Grady calls such individuals "free radicals."[76] Liability will accrue if ex ante, before the accident occurred, the original wrongdoer would have been able to foresee that her actions would encourage a free radical.[77]

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70. Pittsburg Reduction Co. v. Horton, 113 S.W. 647, 647–649 (Ark. 1908).

71. *Id.* at 649.

72. Grady, *Efficient Negligence*, *supra* note 61, at 410; *see also* Grady, *Proximate Cause*, *supra* note 60, at 314 (explaining that an intervening factor is not superseding if "there was no systematic relationship between the second actor's negligence and the first actor's negligence").

73. Grady, *Law of Negligence*, *supra* note 67, at 422–31.

74. *Id.* at 431.

75. *Id.* at 432–34.

76. Grady, *Proximate Cause*, *supra* note 60, at 306–08.

77. *Id.* at 309; *see, e.g.*, Dixon v. Bell (1816) 105 Eng. Rep. 1023 (KB) (defendant was held liable for a shooting that occurred when a thirteen or fourteen-year-old kid who was sent by the defendant to pick up a gun accidently killed another kid).

B. The Hypotheses

Armed with these insights, we can now turn to analyze the possible impact of the change in the law of proximate causation on suicide rates and formulate our hypotheses.

1. The Vars Hypothesis: Suicide Rates Decrease as Liability Increases

One of us, Professor Vars, hypothesizes that the increased liability will increase the quality of health care services and thereby reduce the suicide rate (everything else being equal).[78] The Vars hypothesis thus assumes that in jurisdictions which exempt doctors from liability for a patient's suicide the level of care is suboptimal. It also assumes that unlike the mechanic—who cannot reduce the risk that lightning will hit a car—health care providers *can* and *should* reduce the risk that a patient will die by suicide (i.e., taking care is possible and cost-justified). In legal terms, the claim is that, with some exceptions (see below), suicide should sometimes be deemed a foreseeable type of harm from a doctor's failure to furnish a proper treatment.[79]

The Vars hypothesis is consistent with the economic theories discussed above. If current levels of care are indeed suboptimal as Vars hypothesizes, increasing doctors' liability would result in better care. This is exactly Shavell's insight. Those who already took the appropriate level of care should be indifferent to the increased liability imposed on negligent doctors. The result should not change even if some doctors who took proper care believe that they face a higher expected liability due to possible error or mistake. So long as the extended liability under the new regime does not have a "crushing" effect—that is, so long as it does not result in a reduction in activity levels—one would expect to see a reduction in suicide rates.

The Vars hypothesis may also be consistent with Grady's view of SIF. Under this view, a suicide should only be deemed an "intervening force" (i.e., foreseeable) if one believes that those who die by suicide are "free radicals"—that is, they cannot be deterred. In such cases, imposing liability on the initial wrongdoer, the doctors, may be the only way to break the chain of events that results in a suicide. Recall that a mentally ill person is one typical example of a free radical.[80] This observation has a special importance in suicide cases. Some psychiatric literature concludes that "*all* suicides result from mental illness" and should thus be deemed foreseeable.[81] If those

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78. *See generally* Jennifer Arlen, *Economic Analysis of Medical Malpractice Liability and Its Reform*, *in* RESEARCH HANDBOOK ON THE ECONOMICS OF TORTS 37 (Jennifer Arlen ed., 2013) ("Negligence liability is needed to induce optimal treatment.").

79. Some have advocated an even stronger result. An early comment, for example, notes that, although most courts deem some types of suicides (but not others) as foreseeable, "[p]sychiatric scholars believe that *all* suicides . . . are equally foreseeable." Schlinsog, *supra* note 29, at 467–68, 479 (emphasis added); *see also* Kivland v. Columbia Orthopaedic Grp., LLP, 331 S.W.3d 299, 308 (Mo. 2011) (en banc) ("Modern psychiatry supports the idea that suicide sometimes is a foreseeable result of traumatic injuries.") (citing Schlinsog, *supra* note 29, at 479 n.76); *infra* note 87 and accompanying text (discussing dictum in *Fuller*).

80. Grady, *Proximate Cause*, *supra* note 60, at 306.

81. *See, e.g.*, Schlinsog, *supra* note 29, at 467–68 (emphasis added) (explaining that when the defendant inflicts a personal injury that results in mental illness that induces a suicide, the