

---

---

## Disasters: A Challenge for the Law

Celia Wells, Derek Morgan & Oliver Quick†

I. Introduction .....	496
II. Disasters: Definitions, Types, and Causes .....	497
III. Risk and Blame .....	503
IV. Sites of Legal Activism .....	508
A. Public-Law Instruments .....	511
B. Criminal Proceedings .....	513
C. Tort Law .....	516
i. Procedural Differences .....	517
ii. Damages .....	519
iii. Post-traumatic Stress Disorder .....	522
V. Conclusion .....	525

### I. INTRODUCTION

Broadly speaking, this article addresses the means by which laws and legal institutions respond to organizational failures. In it, we reflect on those legal responses in the light of changes in social and economic organization over the last 150 years. Increasing reliance on sophisticated technology and a developing popular vocabulary of risk have altered our engagement with the world and with each other, and have brought in their wake organizational and technological transformations that affect legal institutions and legal doctrine in significant ways.<sup>1</sup> However, it is easy to lose sight of the fact that legal changes are unpredictable and contradictory, and often take mysterious paths. The set of questions we raise include whether, to what extent, and why, there has been a shift in the expectations of law relative to the way we deal with the untoward and unexpected. It seems to be generally accepted that over the last one hundred years there has been a significant change in society's view of risk, and that cultural beliefs and attitudes about risk have created an environment in which "law abounds."<sup>2</sup> We begin our analysis by giving some thought to the concept of disaster and then turn to explore legal responses in the areas of public law, criminal law, and

---

† Celia Wells, Derek Morgan, and Oliver Quick are, respectively, Professor, Reader, and doctoral student at Cardiff Law School, Cardiff University, Wales.

1. See Diane Vaughan, *Formal Organizations—The Dark Side of Organizations: Mistake, Misconduct and Disaster*, 25 ANN. REV. SOC. 271, 271-05 (1999).

2. Marc Galanter, *Law Abounding: Legalization Around the North Atlantic*, 55 MOD. L. REV. 1 (1992).

tort law. Although the examples are taken mainly from England and Wales, this article is not principally concerned with the specifics of different jurisdictional regimes. Instead, we focus on providing a framework for understanding the range and interaction of legal responses likely to be encountered when disaster strikes.

## II. DISASTERS: DEFINITIONS, TYPES, AND CAUSES

“Disaster” is synonymous with calamity, cataclysm, catastrophe, tragedy, or devastation. Common conceptions of disaster usually involve high magnitude, low-probability events such as mass transport accidents or hurricanes. Increasingly, these single-event disasters are joined, in the public conception of disaster, by low onset “epidemics” such as industrial diseases caused by silicosis, asbestosis, or environmental pollution. A further addition to popular conceptions are social catastrophes “waiting to happen” such as drug and tobacco induced illness, BSE and new variant CJD, and other diseases arising from our own lifestyle.

Disasters are by definition unpredictable and unexpected harms that attract public attention. In his poetic account of the Buffalo Creek dam break, Kai Erikson wrote that disaster “refers to a sharp and furious eruption of some kind that splinters the silence for one terrible moment, and then goes away.”<sup>3</sup> Erikson explained that disasters have a distinct beginning and a distinct end, and that by definition disasters are extraordinary.<sup>4</sup> However, the nuclear reactor disasters at Chernobyl and Three Mile Island have disturbed the certainty of that particular aspect of disaster. While they had a beginning, their end was less easy to identify: they were invisible and lacked geographical containment. No environmental disaster, such as an earthquake or a flood, respects political boundaries, but chemical or nuclear damage can present a challenge of a different scale.

In referring to disasters as out of the ordinary, Erikson used the phrases “freak of nature” and “perversion of the natural processes of life.”<sup>5</sup> By these phrases, he did not mean that disasters are necessarily natural in origin, for that was clearly not the case with Buffalo Creek. Instead, what gave such incidents the characteristics of disaster were their effects on people’s lives. Notions of natural and unnatural need to be given careful thought.<sup>6</sup> A general precondition for legal liability is that an event has been brought about through human action or inaction. Yet, the boundary between natural and human causes, and, therefore,

---

3. KAI T. ERIKSON, *IN THE WAKE OF THE FLOOD* 200 (1979) (published in the United States as KAI T. ERIKSON, *EVERYTHING IN ITS PATH* (1972)).

4. *See id.*

5. *See generally id.*

6. *Cf.* GEORGES CANGUILHEM, *LE NORMAL ET LE PATHOLOGIQUE* (8th ed. 1999).

between natural and “man-made” disaster, is culturally and historically contingent.

Mistakes, misconduct, and disasters “are socially defined in relation to the norms of some particular group.”<sup>7</sup> Because social definitions draw on cultural knowledge, it is helpful to distinguish the types of knowledge to which individuals might have access. On the one hand, there is the explanatory sense of knowledge. For example, we now “know” more about climatology, and nuclear physics than we once did. This knowledge is similar to other physical “discoveries,” such as Copernicus’ explanation of the planetary system or Newton’s theory of gravity, in the sense that it seeks to explain existing phenomena. New explanatory knowledge affects our understanding of the world and ourselves but can be distinguished from a second sense of knowledge, which is taken more for granted in modern societies than it would have been earlier. The second sense of knowledge introduces the notion and, therefore, the possibility of manipulating explanatory knowledge to change future outcomes. The potential to alter—to use the knowledge to make a different knowledge—brings in its wake shifting boundaries between natural and “man-made” events, a distinction that permeates discussions of miracles, disasters, and many areas of life.<sup>8</sup> These shifting boundaries affect our thinking about blame and responsibility. In considering the significance of this last observation, it may be helpful first to understand the social construction of scientific knowledge and the interaction between “expert” and “lay” knowledge.

The socially constructed nature of scientific knowledge<sup>9</sup> means that knowledge reflects dominant ideas like the idea that “human” equals “man.” Human psychology, which considers human perceptions and the relative nature of risk perceptions, is often surrogated to scientific accounts of risk. The “technical/engineering world-view of risk, hazard, and safety differs markedly from that of the social science/management school.”<sup>10</sup> There is great potential for a diffusion of understandings and meanings. Further, how ever great the differences between feminist critics, they are one group that fully comprehends “that science [must] be understood and examined as a thoroughly social and cultural activ-

---

7. Vaughan, *supra* note 1, at 283.

8. For an early wide-ranging exploration of the development of this phenomenon see KEITH THOMAS, *MAN AND THE NATURAL WORLD: CHANGING ATTITUDES IN ENGLAND, 1500-1800* (1983). See also KEITH THOMAS, *RELIGION AND THE DECLINE OF MAGIC: STUDIES IN POPULAR BELIEFS IN SIXTEENTH AND SEVENTEENTH CENTURY ENGLAND* (1971).

9. See Rochelle Dreyfuss & Dorothy Nelkin, *The Jurisprudence of Genetics*, 45 *VAND. L. REV.* 313, 321 (1992).

10. D. Blockley, *Hazard Engineering*, in *ACCIDENT AND DESIGN: CONTEMPORARY DEBATES IN RISK MANAGEMENT* 31 (Christopher Hood & David K.C. Jones eds., 1996). See also Tom Horlick-Jones, *Meaning and Contextualisation in Risk Assessment*, 59 *RELIABILITY ENGINEERING & SYS. SAFETY* 79, 80 (1998).

ity.”<sup>11</sup> The “flakiness” of knowledge goes beyond the argument that science is bounded. Scientific or expert knowledge interacts with and is defined by our own understanding of the world. Tacit knowledge, which is derived from ordinary life, plays a significant role and is often in fundamental tension with the “basic culture of science.”<sup>12</sup>

Literature on disasters and errors often reveals a tension between individual and organizational approaches. Mistakes are a predictable property of work. In every occupation, there is a calculus of the probability of making mistakes and a certain amount of error remains normal, routine, and inevitable.<sup>13</sup> Despite their inevitability, “mistakes are a curiously neglected phenomena of study.”<sup>14</sup> J.T. Reason offers a working definition of error as a “generic term to encompass all those occasions in which a planned sequence of mental or physical activities fails to achieve its intended outcome, and when these failures cannot be attributed to the intervention of some chance agency.”<sup>15</sup> The different meanings and connotations of words such as accidents and errors are not without significance. For example, “accident” conveys a rather neutral, blame free meaning, unattached to notions of responsibility and liability. The traditional conception of a pure accident, whilst not always accurate, is an unmotivated, unforeseen event, distinguished from willful damage and neglect.<sup>16</sup> An accident is regarded as a result of fate, and, as such, allows for the exoneration of participants from responsibility. By comparison, in general usage, a mistake or error signals a wrong act—a blunder—caused by some failure or inattention, and thus conveys a negative judgmental connotation. Similarly, negligence carries “at least an innuendo of moral blame.”<sup>17</sup> Labeling and presenting an incident as an accident or an error is not simply a semantic quibble. The use of particular language and the accompanying subtle differences in meaning and connotations will contribute to the molding of particular responses.

Reason further argues that human errors are divided into two categories: active and latent failures.<sup>18</sup> Active failures are unsafe acts com-

---

11. E. DOYLE MCCARTHY, *KNOWLEDGE AS CULTURE: THE NEW SOCIOLOGY OF KNOWLEDGE* 94 (1996).

12. See JEROME R. RAVETZ, *SCIENTIFIC KNOWLEDGE AND ITS SOCIAL PROBLEMS* (1971). See also Brian Wynne, *Knowledges in Context*, 16 *SCI. TECH. & HUM. VALUES* 111, 111-21 (1991). “Tacit knowledge” forms an important matter in legal and specifically judicial work in the maxim of “judicial notice.”

13. See EVERETT CHERRINGTON HUGHES, *MEN AND THEIR WORK* (1958).

14. MARIANNE A. PAGET, *THE UNITY OF MISTAKES: A PHENOMENOLOGICAL INTERPRETATION OF MEDICAL WORK* 59 (1988).

15. J.T. REASON, *HUMAN ERROR* 9 (1990).

16. See JUDITH GREEN, *RISK AND MISFORTUNE: A SOCIAL CONSTRUCTION OF ACCIDENTS* 2 (1997).

17. PATRICK DEVLIN, *SAMPLES OF LAWMAKING* 100 (1962).

18. See REASON, *supra* note 15, at 173. Reason now prefers the label “latent conditions” because this does not necessarily involve error or failure. See J.T. REASON, *MANAGING THE RISKS OF ORGANIZATIONAL ACCIDENTS* 9 (1997).

mitted by individuals at the “sharp end” of the action, such as pilots, train drivers, and surgeons. Latent failures, on the other hand, involve decisions taken by management, with the consequences lying dormant for some time and then triggered by active failures. Broadly speaking, this classification of error as active or latent fits with the distinction between individual and organizational approaches to understanding such incidents. Typically, the individual “rational choice” model isolates individual culprits and pursues a strategy of blame, punishment and deterrence. Operators at the sharp end of the action are generally deemed responsible. For adherents of this approach, quality is improved by rooting out so called “bad apples.”<sup>19</sup> Advocates of this approach are typically supportive of disciplinary mechanisms for dealing with and deterring individual failings. The legal processes of the civil and criminal justice systems are regarded as necessary in delivering appropriate punishment.

However, scholars from sociology and psychology have challenged the individual blamist approach, preferring to concentrate on organizational or systems analyses. The organizational approach is predicated on the notion that individual human errors are inevitable. Rarely, according to this argument, are errors and disasters the product of the last link in the chain, i.e., the active error. Rather, in order to understand why the individual failed, we must search for extrinsic factors and, in the words of D. M. Berwick, pursue a policy of continuous improvement.<sup>20</sup> The approach is premised on the fact that all systems have a number of latent failures, generally management and communication problems. The more complex, interactive, and opaque the system, the greater number of latent errors it is likely to contain.<sup>21</sup> Instead of regarding errors as negative events requiring some sort of sanction, this approach encourages the open disclosure of all such incidents—the so-called “error as treasure approach.”<sup>22</sup> The key questions then become under what conditions such errors occur and whether the benefits of a particular technology or procedure outweigh its risks? These questions require attention to the design, procedures, and culture of organizations. The idea that all disasters are unique has been challenged by Barry Turner. He suggests analyzing different industrial sectors for common causes of serious accidents.<sup>23</sup> If we accept the argument that managerial, administrative, and social factors lie behind errors, the cases are unlikely to be situationally specific. Therefore, given the relative rarity

---

19. See Donald M. Berwick, *Continuous Improvement as an Ideal in Health Care*, 320 NEW ENG. J. MED. 53, 53-56 (1989).

20. See *id.*

21. See REASON, *supra* note 15, at 198.

22. Berwick, *supra* note 19, at 54.

23. See BARRY A. TURNER & NICK F. PIDGEON, *MAN-MADE DISASTERS* 157 (2d ed. 1997).

of such accidents, pooling experiences and learning lessons from different domains such as transport, industrial, and medicine allows us to develop a common language.

Disasters share much in common with the breakdown of other complex socio-technical systems. Disasters are better understood in terms of process rather than sudden acts of God or “bolts from the blue.”<sup>24</sup> This analysis goes beyond the standard pursuit of purely technical causes of such incidents, and focuses on the involvement of neglected organizational and social issues. Understanding disasters is a “socio-technical” problem, and demands an appreciation of institutional, organizational, and administrative structures linked with such events.<sup>25</sup> Such an analytical approach blends well with the no-blame approach of the present safety culture. Turner claims that most disasters result from unnoticed, misunderstood, or miscommunicated events. Very few disasters arise from complete ignorance; rather, “failures of foresight” accumulate in an “incubation period.” Information and communication difficulties are the fundamental cause of many disasters. In short, “disasters arise from an absence of some kind of knowledge at some point.”<sup>26</sup> This analysis of disasters prompts questions such as who had foreknowledge and who was aware of potential danger?<sup>27</sup> Whilst only unusually large-scale, costly, public, and unexpected accidents (or a combination of these accidents) warrant the label disaster, an elusive line separates mere accident from disaster. This is a line that may never be clearly drawn because any accident may be regarded as a disaster by individuals close to the incident.<sup>28</sup> Furthermore, there are benefits to merging the study of the closely related subjects of accidents and disasters, in that the “better we understand how errors resulting in death and disruption arise, the more we also extend our knowledge of the way in which equally important but less physically destructive mistakes come about.”<sup>29</sup> Post-disaster reviews or inquiries often reveal events that, though not causative of the particular accident, provide insights into future failures of foresight.<sup>30</sup>

For Turner, communication and information handling difficulties are the fundamental preconditions to disasters.<sup>31</sup> These problems manifest themselves in a number of different ways: wrong or misleading information is sent, information may be distorted in transmission, poor communication between particular individuals (personality clash, etc.),

---

24. *Id.* at 38.

25. *See id.* at 3.

26. *Id.*

27. *See id.*

28. *See id.* at 69.

29. *Id.* at 4.

30. *See id.* at 77.

31. *See generally id.*

or over-reliance on informal networks (established for other purposes) to communicate about complex problems. In addition, there may be further difficulties after information is transmitted. For example, the difficulty may be an inability to assimilate a mass of information or the adoption of a "passive" mode of administrative response.<sup>32</sup> Typically, the information is available to someone, but various factors inhibit its flow. An individual manager may not appreciate the significance of a particular piece of information, or there may be insufficient time to pass on the information, either because an individual is unsure where it is needed, or due to constraints of habit, lack of authority, or lack of resources.<sup>33</sup> Turner's analysis casts doubt on the blame cultures that shift responsibility from poor management decisions to individual scapegoats. Moreover, legal blaming processes have the power to prevent open communication and tend to "stifle all attempts at learning."<sup>34</sup>

While some disaster theorists emphasize the inevitability of disaster, this does not mean that safety regimes cannot reduce their frequency or impact. Accidents are normal, Perrow argues, where systems share characteristics of interactive complexity and tight coupling (strong inter-connections between different processes).<sup>35</sup> The most dangerous systems, therefore, are exemplified in the chemical and nuclear settings. Causes of accidents are found in the complexity of the system—in particular, the interaction of multiple failures. Perrow highlights failures in six components: design, equipment, procedures, operators, environment and supplies, and materials.<sup>36</sup> Echoing Turner, Perrow challenges "the ready explanation of operator error" by offering a more sophisticated analysis focusing on the properties of systems instead of the standard practice of simply claiming operator error.<sup>37</sup>

The decontextualized approach of regarding individuals as the supreme cause of organizational misconduct has been subject to further challenge. Using the *Challenger* space shuttle explosion as her case study, Diane Vaughan criticizes the rational choice/deterrence model that is predicated on the notion of individualism and the strategy of punishment. For Vaughn, human behavior is best interpreted as situated action. Decision making cannot be "disentangled from social context, which shapes preferences and thus what an individual perceives as rational."<sup>38</sup> Merely targeting individuals, rather than root causes embedded in the underlying policies, cultures, and structures of organiza-

---

32. See *id.* at 53.

33. See *id.* at 91.

34. *Id.* at 194.

35. See CHARLES PERROW, *NORMAL ACCIDENTS: LIVING WITH HIGH-RISK TECHNOLOGIES* 4 (1984).

36. See *id.* at 8.

37. *Id.* at 26.

38. Vaughan, *supra* note 1, at 33.

tions, is an ineffective strategy of dealing with and preventing harmful acts.<sup>39</sup>

The merits of organizational analysis with its eschewal of individual blame finds further support within risk management theory. Risk management scholars have challenged the individual blamist approach, which is considered dysfunctional and counterproductive, because the approach stifles the flow of information that aids learning.<sup>40</sup> In short, the no-blame organizational school of thought holds:

[W]here the institutional processes relating to major accidents (disasters) is primarily focused on apportioning blame, facts will be concealed or seriously distorted by the adversarial process, with negative consequences for risk management. If management paralysis and emotional responses in the media take the place of calm stock-taking in such circumstances, crucial information that could be relevant to learning will not be pooled.<sup>41</sup>

An example from the airline industry illustrates this claim. Christopher Hood and David Jones reported that, following the prosecution of a pilot whose aircraft flew dangerously close to a hotel, there was a considerable “drying up” of information that was to be forwarded to the confidential reporting program.<sup>42</sup> The “drying up” hampered the overall purpose of reducing risks and improving safety.<sup>43</sup> As such, some have even proposed a completely no-blame approach.<sup>44</sup>

However, the organizational approach to understanding and dealing with error is not without problems. Given the emphasis on avoiding the individual blame trap, there is, arguably, a danger of overlooking aspects of valid individual responsibility. At the very least, the collective approach risks blurring lines of accountability and avoiding necessary questions of where responsibility should lie. It is possible that, by skewing the emphasis in favour of wider organizational factors, errors will never be regarded as an individual's fault, even when they might properly be so regarded. Further, this could erode the sense of personal and professional responsibility. Arguably, there are positive aspects to blaming. It is difficult to deny the deterrence aspect of blame particularly with legal processes.

### III. RISK AND BLAME

A shift in the political and social frameworks of blame has placed

---

39. *See id.* at 34.

40. *See* Christopher Hood & David K.C. Jones, *Liability and Blame: Pointing the Finger or Nobody's Fault*, in ACCIDENT AND DESIGN: CONTEMPORARY DEBATES IN RISK MANAGEMENT 47 (Christopher Hood & David K.C. Jones eds., 1996).

41. *Id.* at 48.

42. *See id.*

43. *See id.*

44. *See* N. Johnston, *Blame, Punishment and Risk Management*, in ACCIDENT AND DESIGN: CONTEMPORARY DEBATES IN RISK MANAGEMENT 72-83 (Christopher Hood & David K.C. Jones eds., 1996).

responsibility for untoward events at the door of organizations rather than at the door of individuals and has resulted in the use of criminal and civil remedies. Drawing on the transformation of a personal injury into a legal dispute that was developed by William Felstiner, Richard Abel, and Austin Sarat,<sup>45</sup> three stages—naming, blaming, and claiming—mark the move from acceptance of death and disaster to the wide-felt need to blame. “Naming” is the recognition that disastrous events are more than accidents or “acts of God”—this is where cause becomes a vital issue. The “blaming” occurs through changing ideas about human behavior and social groupings. In other words, a system based conception of organizational behavior has gradually come to replace the assumption that individuals act either alone or as atoms in a wider group. The third stage, “claiming,” invites an exploration of the relationship between tort and criminal law as avenues of blame. However, the legal response also adds a further important component, the symbolic (or de-claiming) dimension.

It has already been shown that disasters do not label themselves. To call an event a disaster is to label it as out of the ordinary and to call for a response. In Turner’s words, a disaster is “an event, concentrated in time and space, which threatens a society or a relatively self-sufficient sub-division of a society with major unwanted consequences as a result of the collapse of precautions which had hitherto been culturally accepted as adequate.”<sup>46</sup>

Attitudes regarding safety and risk affect both the propensity to blame and the target of blame. The importance of risk perception is being increasingly recognized.<sup>47</sup> In their account of media reaction to Three Mile Island, Andrew Baum, Raymond Fleming, and Laura Davidson suggest that technological disasters are particularly newsworthy.<sup>48</sup> Like Hiroshima, Seveso, Bhopal, and Chernobyl, Three Mile Island is a name which reflects “the uniquely twentieth century phenomenon of man’s capacity to catastrophically poison himself and his natural environment.”<sup>49</sup>

Compared with so-called natural disasters, which inflict visible damage, technological disaster can be invisible and universally threatening.<sup>50</sup> And in terms of control, technological catastrophes arise when systems that were thought to be under control fail.<sup>51</sup> “Not having con-

---

45. See William L.F. Felstiner et al., *The Emergence and Transformation of Disputes: Naming, Blaming, Claiming . . .*, 15 L. & SOC’Y REV. 631 (1981).

46. TURNER & PIDGEON, *supra* note 23, at 70.

47. See Hood & Jones, *supra* note 40, at 47.

48. See Andrew Baum et al., *Natural Disaster and Technological Catastrophe*, 15 ENV’T & BEHAV. 333 (1983).

49. PETER HODGKINSON & MICHAEL STEWART, *COPING WITH CATASTROPHE: A HANDBOOK OF DISASTER MANAGEMENT* 55 (1991).

50. See Baum et al., *supra* note 48, at 334.

51. See *id.* at 346.

trol when one expects to have it appears to have different psychophysiological consequences than does not having control when one had no expectations for it.”<sup>52</sup> Connected to this is the finding that the risks that people take vary in relation to their voluntariness; there is far greater tolerance of chemicals when consumed voluntarily such as in food than when encountered involuntarily such as with lower risk environmental chemicals.<sup>53</sup> Moreover, familiarity alters our perceptions of risk. This, perhaps, explains why we bring ourselves to make a journey by car or why people are resistant to move from earthquake prone areas. In short, people select and suppress any thoughts about the undesirable aspects of the hazard and many do so differentially according to their preference for risk.<sup>54</sup>

Ulrich Beck’s “risk society” thesis provides powerful insights into the role and focus of blame in contemporary society.<sup>55</sup> One of Beck’s interlocutors has recently distilled the concept of “risk society” in a way that may be more accessible for a legal audience. Anthony Giddens has cautioned that the idea of “risk society” might suggest a world that has become more hazardous, but this is not necessarily so.<sup>56</sup> Rather, it is a society increasingly preoccupied with the future (and also with safety), which generates the notion of risk; the use of “risk” is taken to represent “a world which we are both exploring and seeking to normalise and control.”<sup>57</sup> In this understanding, “risk society” suggests a society that increasingly “lives on a high technological frontier that absolutely no one completely understands and that generates a diversity of possible futures.”<sup>58</sup> The “risk society” derives from two fundamental transformations connected to the increasing influence of science and technology: “the end of nature” and the “end of tradition.”<sup>59</sup> The “risk society” is one that creates manufactured risk. Science and technology create as many uncertainties as they dispel.

The “risk society” thesis raises issues of trust, accountability, and personal responsibility. The social institutions associated with law play a significant role in risk management and the production of risk knowledge. The concern with risk is not only focused on knowledge of probability, it also focuses on cultural attitudes regarding the acceptability of different hazards. The relationship between risk and blame can be un-

52. *Id.* at 348.

53. See MARTIN T. KATZMAN, *CHEMICAL CATASTROPHES AND THE COURTS* 91 (1986).

54. See SIR FREDERICK WARNER & DAVID H. SLATER, *THE ASSESSMENT AND PERCEPTION OF RISK: A ROYAL SOCIETY DISCUSSION* 12 (1981).

55. See ULRICH BECK, *RISK SOCIETY: TOWARDS A NEW MODERNITY* (1992). See also ANTHONY GIDDENS, *MODERNITY AND SELF-IDENTITY: SELF AND SOCIETY IN THE LATE MODERN AGE* (1991).

56. See generally Anthony Giddens, *Risk and Responsibility*, 62 *MOD. L. REV.* 1 (1999).

57. *Id.* at 3.

58. *Id.*

59. See *id.*

derstood in this way. Perceptions of risk affect the ways in which societies respond to different threats and how they distribute institutional authority. Moreover, perceptions of risk provide the focus for debates about morality and identity.<sup>60</sup> What is regarded as risky by social groups is not given, but is selected.

Technological innovation leads to an acceptance of, and reliance upon, others. Risk increases, but it is also under control in societies where it is privatized, a matter for individual judgment, and an issue of institutional trust. Individual situations are also institutional because "the liberated individual is dependent on a series of secondary agencies and institutions."<sup>61</sup> The relationship between the individual and institutions affects all aspects of the question we are considering here. It affects the social, economic, and cultural context in which people live their lives; it affects their perception of risk; and it affects their understanding of the causes of untoward events. The changing relationship between individual citizens and community, and between social and state institutions, inevitably brings shifts in our understanding of those institutions themselves.

The example of the BSE/CJD<sup>62</sup> crisis as it developed in the United Kingdom in the 1990's illustrates our preoccupation with risk and its deployment as a cultural resource, including its potential to provide a vocabulary for making sense of seemingly uncontrollable hazards.<sup>63</sup> On the one hand, technological innovation has transformed the food economy into a major international business reliant on mass-production methods and transportation—hence the emergence of the risk of wide-spread (invisible) contamination. On the other, our familiarity with and reliance on risk analysis leads to the belief that danger is quantifiable and predictable. BSE has shaken those beliefs and at the same time confirmed that bringing hazard under control is both individualized and reliant on expert knowledge. Even after it was known that BSE was transmissible to humans, there was still considerable objection to the ban on the sale of beef on the bone.

Blame and cause are inter-related; cause underlies blame. To blame someone for an occurrence is to assert a causal relation, although the converse is not true. There is a futility in the traditional search for separate principles by which to impute cause beyond the factual but-for level. This, of course, does not mean that any but-for contribution must lead to legal attribution, but that taking any steps beyond but-for means entering a complex terrain of responsibility attributed to issues that lie

---

60. See MARY DOUGLAS, *RISK AND BLAME: ESSAYS IN CULTURAL THEORY* (1992).

61. BECK, *supra* note 55, at 130-32.

62. Technically referred to as bovine spongiform encephalopathy/Creutzfeldt-Jakob disease, the layman's terminology is mad cow disease.

63. See generally JENNIFER COOKE, *CANNIBALS, COWS AND THE CJD CATASTROPHE* (1998).

beyond those of cause. Whether a result was a *sine qua non* of the defendant's act is a necessary but not sufficient condition for imputing cause. It is a trite point that in most cases imputing cause presents little difficulty. For those situations where there might be problems in choosing between a selection of immediate actors (the intervening event case for example), H.L.A. Hart and Tony Honoré propose that legal liability attaches on the basis of the abnormality of the cause.<sup>64</sup> In other words, certain things are taken for granted such as a reasonably competent, good-faith rescue, and medical service. Where the result, the death, can be attributed to a break in that expectation (especially if the incompetence was gross), then the original but-for cause may be wiped out. But a principle that depends upon a criterion such as normal/abnormal runs into the problem that it involves a value-judgment. "[O]ne obvious way of fleshing our ideas of 'abnormality' . . . is to do so in terms of degrees of responsibility or culpability."<sup>65</sup> Causation then ceases to be determined from within but draws on other considerations such as intention, knowledge, or recklessness, which are necessary for a finding of culpability.

The range of causal factors from which to select in our explanation or attribution of any accident includes, at one end, the individual operator's human error and, at the other, the accepted practices and operating procedures of particular industries. The Southall rail crash<sup>66</sup> in 1997 provides an example. The automatic warning system, which would normally prevent a train from proceeding through red signals, was malfunctioning in one of the train's two power units. The engineers were not able to fix it. One solution would have been to reverse the train's configuration and place the functioning unit at the front of the train, but this would have caused a delay. Instead, the driver was authorized to operate the train without the warning system. The train was in the last ten miles of its journey to Paddington, its London terminus, when the signals changed to red. By the time the driver noticed the signal, it was too late to stop the train from plowing into a freight train that was crossing in front of his train. Seven people died. Was the precipitating factor in the train crash that the freight train was crossing later than usual? Or the driver's inattention? Or the decision not to swap over the power units? All of these were not normal. It was, however, normal to operate a train with one driver. There was no provision made that prohibited a train from operating without the warning system in place.

---

64. See H.L.A. HART & TONY HONORÉ, CAUSATION IN THE LAW 352 (2d ed. 1985).

65. NICOLA LACEY & CELIA WELLS, RECONSTRUCTING CRIMINAL LAW: CRITICAL PERSPECTIVES ON CRIME AND THE CRIMINAL PROCESS 36 (2d ed. 1998).

66. See generally HEALTH & SAFETY COMM'N, THE SOUTHALL RAIL ACCIDENT INQUIRY REPORT (1999).

Naming and blaming can only lead to claiming if the institutional mechanisms are available. What determines the theory of a "claim?" Different factors operate depending on the jurisdiction in which the potential claimants are based. A tortious claim may be the only or obvious avenue in one jurisdiction, whilst a criminal proceeding may be the best way to achieve just punishment in another jurisdiction. The United States relies on private law resolution more than other industrialized nations. Outside the United States, reliance on administrative controls and social welfare solutions is much stronger. Even in the United States, private law resolutions are dominated by routine remedies like workers' compensation, which "provide low cost recoveries without much contest, and which attract little investment of legal talent and little public attention."<sup>67</sup> A minority of injuries are handled by the tort system, through a dynamic entrepreneurial bar.<sup>68</sup>

#### IV. SITES OF LEGAL ACTIVISM

Marc Galanter outlines four different types of institutional and legal responses to the risks inherent in our increasing reliance on technology.<sup>69</sup> First, there are controls intrinsic to technology: the initial design, safety procedures, and worker training. While many are not specifically legal, they are, nonetheless, regulated through scientific and technological practice. Unlike some legal regulation, this transfers fairly easily with the technology across national boundaries. Second, there are administrative controls by government. These may include health and safety regulatory regimes as well as specific legislative provisions (i.e., those to deal with the "millennium bug"). This second type of control inevitably varies depending on the jurisdiction and forms part of the business considerations in determining the best location for manufacturing and producing goods. The same is true of the third layer, which consists of the public institutions for absorbing and spreading losses: health care systems and services, welfare institutions, etc. Private law, which according to Galanter "generates and broadcasts standards in the course of vindicating the claims of injured persons,"<sup>70</sup> comprises the fourth layer.

There is an under-emphasis in Galanter's account on public law institutions, including criminal law. It is surprising that neither criminal law nor what we might call the public institutions of investigation, such as public inquiries, inquests, or fatal accident inquiries, appear in this conceptualization. Private and public law "solutions" are not as concep-

---

67. MARC GALANTER, *THE TRANSNATIONAL TRAFFIC IN LEGAL REMEDIES* 133 (1994).

68. *See id.* at 133-57.

69. *See id.*

70. *Id.*

tually distinct as sometimes thought. The notions of “private” and “public” law are shifting with a growing debate about the “public” aspects of private law, as well as about the “private” aspects of public law. This distribution of work between the different layers of institutional response affects the balance between prospective and preventive mechanisms as against retrospective and remedial controls. However, in all systems there is a mix; one of the biggest mistakes is to perceive them as separate, unrelated alternatives. We will explore these arguments about the relationships between the various legal institutional frameworks in more depth before examining the specific regimes of public law, criminal law, and tort law.

Tort law compensates, while criminal law blames. Criminal law “prohibits,” while tort law “prices,”<sup>71</sup> or so the traditional view goes. The development of the mass tort suit, the availability of exemplary damages, and the retention of the jury system, have pushed at the boundaries of criminal and tort law.<sup>72</sup> Although the concern that the rise of civil actions may undermine the procedural protections of criminal law is greater in the United States than in England and Wales, the underlying argument nonetheless should not be ignored. It should be noted at the outset that criminal law has a number of faces. When we talk about criminal behavior, criminal responsibility, and criminal punishment, we do not usually think very deeply about the meaning of criminality and criminal law. Although it is traditionally perceived as a system of state-imposed punishment, criminal law is chameleon-like, adopting or mimicking the compensatory and mediatory roles of civil law.<sup>73</sup> The layers of meaning within the institution of criminal law and justice are not mutually exclusive. Indeed, they are often incompatible, allowing the institution to be perceived as “a system of imposed social control; a system based on reciprocity of obligations and the recognition of certain universally held rights and interests; a system which reproduces and reinforces certain shared meanings; a system which manages or suppresses certain kinds of social conflict; and many other things besides.”<sup>74</sup>

Criminal law, nonetheless, is perceived as a system of moral education, condemnation, and punishment, with often as much regard for the defendant’s behavior as the result she causes.

Civil law is, on the other hand, exclusively concerned with compen-

---

71. See John C. Coffee, Jr., *Class Wars: The Dilemma of the Mass Tort Class Action*, 95 COLUM. L. REV. 1343 (1995).

72. See Richard A. Nagareda, *Outrageous Fortune and the Criminalization of Mass Torts*, 96 MICH. L. REV. 1121 (1998).

73. See Lucia Zedner, *Reparation and Retribution: Are They Reconcilable?*, 57 MOD. L. REV. 228 (1994).

74. Nicola Lacey, *A Clear Concept of Intention: Elusive or Illusory?*, 56 MOD. L. REV. 621, 636 (1993).

sation for outcomes in the sense that legal claims must be based on actual, not potential, harmful outcomes.<sup>75</sup> Additionally, tort law continues to find its roots in the common law, while criminal law is increasingly statute-based. Judicial activism has been prominent in a number of mass tort areas, including silicone implants and tobacco litigation. All of this suggests that tort law represents a public function that is different from, but not entirely removed from, that of criminal law.<sup>76</sup>

Another form of response to undesirable or harmful activities is the use of corrective taxes.<sup>77</sup> Coercive legal forms are increasingly seen as complex and inflexible—inevitably spawning a mass of detailed rules. This has raised a debate as to whether complex bureaucracies can prescribe appropriate standards or whether deregulation would lead to more flexible and less interventionist solutions. Corrective taxes have most commonly been used for pollution control but could also be applied to other externalities such as work accidents, road accidents, or defective, unhealthy products.<sup>78</sup> Financial impositions can deter a defined course of conduct as well as attach a price to the consequences, which are characteristics shared by both criminal law and tort law. Criminal law and tax are distinguished from tort law by public enforcement and the inability to vary some terms by contract. Criminal law and tort law are distinguished from tax law by their distinction between lawful and unlawful behavior. Only when the conduct is unlawful does the punishment or price become payable. A deterrent model is more suitable, Anthony Ogus suggests, where no social utility attaches to the activity.<sup>79</sup> However, in many regulated areas, there is a social value or trade off between value and social costs, and here corrective taxation may be a more appropriate mechanism. Ogus concludes on a cautious note, “the use of corrective taxes is, in general, more problematic than appears from the abstract models formulated by economists, notably as regards administrative costs, targeting and accountability.”<sup>80</sup> The discussion, however, introduces an alternative perspective on the debate about site of claim. Rather than compare *ex post* systems, it alerts us to the possibility of *ex ante* solutions. This is one among many avenues along which legal regulation, preventive measures, and responses might, and in fact do, travel.

This article will now turn to a more detailed analysis of some of

---

75. See Nagareda, *supra* note 72.

76. See Marshall S. Shapo, *In the Looking Glass: What Torts Scholarship can Teach Us about the American Experience*, 89 NW. U. L. REV. 1567 (1995).

77. See Anthony Ogus, *Corrective Taxes and Financial Impositions as Regulatory Instruments*, 61 MOD. L. REV. 767 (1998).

78. See Robert S. Smith, *The Feasibility of an “Injury Tax” Approach to Occupational Safety*, 38 LAW & CONTEMP. PROBS. 730 (1974).

79. See generally Ogus, *supra* note 77.

80. *Id.* at 787.

these possibilities, beginning with an outline of the public or state mechanisms for dealing with the aftermath of disasters.

#### *A. Public Law Instruments*

The public law framework for dealing with disasters includes, of course, the panoply of regulatory provisions and agencies dealing with occupational health and safety, as well as emergency response provisions. We are concerned here with outlining responses that take place after the event. The United Kingdom has a somewhat unstructured architecture of public inquiries and investigation. Both the police and the health and safety executive are likely to be involved in the immediate aftermath of a disaster. Some form of public inquiry is likely to take place and the deaths will also pass through the coronial system. Public inquiries are characterized by discretionary operation reflecting a flexibility in institutional response as well as disclosing some confusion of purpose.

The United Kingdom, over the last decade, has witnessed a widespread adoption of “risk talk” in government and, paralleling Ogus, the language of “holistic government” as a preventive mechanism.<sup>81</sup> A parallel development is the decline in trust of previously revered institutions such as the criminal justice system, the health system, and the public transport systems. The public inquiry, one of the formal tools available to government in responding to a range of concerns, has been widely deployed during this period. Public inquiries following disasters have a number of functions and purposes. As well as providing a forum in which those directly affected, whether bereaved or survivors, can transact their grief, anger, or other emotions in a controlled and public manner, they can also furnish an opportunity for the event to be held up to public obloquy and to exert pressure for policy changes. The purposes of an inquiry are to establish the facts, survey causes, and identify any culpability.

The lack of uniformity between the different types of inquiry leaves significant discretion in the hands of the government in determining how to orchestrate the public response to a disaster. There are variations in the powers and procedures between these types of inquiries. Tribunals of Inquiry under the 1921 Act<sup>82</sup> and many judicial inquiries set up under specific Acts of Parliament, provide powers to compel witnesses, to compel the production of documents, and to require evidence to be given under oath. Government departmental inquiries do not carry the same powers. The procedure adopted will reflect the general purposes of inquiries: establishing facts, determining

---

81. See PERRI 6, *HOLISTIC GOVERNMENT* (1997).

82. *Tribunals of Inquiry (Evidence) Act of 1921* (Eng.).

cause, and allocating blame.

Many of the procedural difficulties arise not from the lack of a single model, but from the nature of the inquiry process itself, which is inquisitorial rather than adversarial. Although individual reputations and public safety may be affected, inquiries do not give rights in relation to such matters as legal representation, cross-examination, or appeal. The adversarial model of procedural fairness depends, among other things, on notice and disclosure, confrontation and cross examination, and a reasoned decision. An inquiry is not a trial. There is no allegation or statement of a claim, burden of proof, nor a determination at the end that one side has prevailed. The inquiry itself is responsible for gathering evidence, questioning witnesses, and determining the progress and direction of the proceedings.

Any public inquiry overlays the normal day-to-day, official processing of death. Suspicious deaths are officiated in England and Wales by a coroner, with the help of the medical profession. The police and prosecuting authorities have also taken over some of the roles previously exercised by the coroner's inquest. About a third of all deaths are reported to the coroner. Of those, only twelve percent give rise to an inquest and very few are conducted before a jury (one in twenty-five).<sup>83</sup> Deaths in disaster are always followed by an inquest, because an inquest is mandatory where there is reasonable cause to suspect a violent or unnatural death. A jury is mandatory where death is caused by an accident notifiable under the Health and Safety at Work Act 1974,<sup>84</sup> or where the death occurred in circumstances the continuance or possible recurrence of which is prejudicial to the health and safety of the public or any section of the public.<sup>85</sup> Most disasters will satisfy one or both of these conditions. Inquests with juries occupy an important symbolic, declamatory role in the legal process.

The jury's verdict has to be accompanied by a statement that identifies the deceased and describes how, when, and where the deceased came by his death. To bring a verdict of unlawful killing, the jury needs to be convinced, based on the criminal standard of proof (i.e., beyond all reasonable doubt), that the deaths were caused unlawfully, which means, at a minimum, through gross negligence. Coroners often say that the purpose of an inquest is not to determine civil or criminal liability and, at one level, this evaluation is correct.<sup>86</sup> The inquest cannot determine these matters, but, on the other hand, in determining how the

---

83. See ROGER TARLING, CORONER SERVICE SURVEY (1998).

84. Health and Safety at Work Act 1974 (Eng.).

85. See Coroners Act 1988 (Eng.).

86. See Coroners Rules 1984, r. 42 (Eng.). "No verdict shall be framed in such a way as to appear to determine any question of a) criminal liability on the part of a named person, or b) civil liability." *Id.*

deceased came to die, a determination of civil or criminal liability may be unavoidable. The main mechanisms for avoiding this clash of purpose are that coroners are required to adjourn any inquest pending police investigation of any possible homicide charges, and that any inquest held after a trial cannot record a verdict inconsistent with the finding of the trial. More recently, a requirement has been introduced that coroners must adjourn if the cause of death is likely to be investigated in a public inquiry.<sup>87</sup> Broadly, inquiries might be seen as serving a public need to establish causes and recommend preventive measures. Inquests represent a more individually based investigation, which relatives seem to regard as very important for two main reasons: first, it allows them to grieve over their own particular loss and to separate their relative from the disaster as a whole, and second, inquests, with their juries, are seen as a useful way of exerting pressure on authorities to consider criminal proceedings.

### *B. Criminal Proceedings*

Ten years ago, prosecution of a corporation on manslaughter charges was not only unprecedented in England and Wales, it would have challenged the comprehension of most criminal lawyers let alone members of the public. Today, prosecutions are still rare but corporate manslaughter is a term with wide public recognition. Yet, prosecutions of high-profile companies following transport disasters have failed; the handful of successful prosecutions have been confined to “one-man” companies. The reasons for this are found in the particulars of corporate criminal liability as well as in a resistance to notions of collective responsibility.

The most recent English corporate case was brought against Great Western Trains (“GWT”) for the Southall rail crash. GWT’s procedures had allowed a high speed train with a malfunctioning Automatic Warning System to be driven by one man.<sup>88</sup> The new Automatic Train Protection System, promised after earlier crashes, was not in use because this particular driver had not been trained to operate it. The trial judge ruled, and was upheld by the Court of Appeal,<sup>89</sup> that an individual company director had to be named in the indictment. This represents a strict and somewhat formalist position in an area of common law where underlying principles have long been in flux.

---

87. See Access to Justice Act 1999, § 71 (Eng.).

88. See *supra* Part III.

89. See Attorney-General’s Reference (No. 2 of 1999) (2000) (Crim. App. Eng.); see also *Establishing Corporate Manslaughter Guilt*, THE TIMES (LONDON), February 29, 2000. The case was not an appeal as such (there is no appeal against acquittal in the Crown Court). Instead, there is a procedure that allows challenge on points of law with the object of giving authoritative guidance to Crown Courts in future trials. See Criminal Justice Act 1972, § 36 (Eng.).

It is increasingly accepted that neither of the two legal forms that have evolved to deal with corporate defendants in common law jurisdictions are satisfactory.<sup>90</sup> Vicarious liability, which applies in most regulatory offenses, is both too wide and too narrow: too wide because it attributes the wrong-doings of any employee to the company and too narrow because it leaves no opportunity to explore company policies. The identification principle, which applies, *inter alia*, to offenses against the person, is regarded as hopelessly insensitive to the diversity of corporate organization. This solution to the conceptual problem of attributing a mental element to a company imagines the company's senior officers acting *as*, rather than *on behalf of*, the company. Only those who control or manage the affairs of a company are regarded as embodying or acting as the company itself for these purposes.<sup>91</sup>

The ossification of corporate liability principles has arisen partly because the prosecution of companies for manslaughter or other serious offenses against the person is rare. Most of the development has taken place off-center in prosecutions for regulatory offenses involving proof of a mental element. At one point, it seemed that the English appellate courts were moving towards a more modern approach. In the Privy Council's advice, in *Meridian Global Funds Management Asia, Ltd. v. Securities Commission*,<sup>92</sup> Lord Hoffmann explained the need for a more sophisticated and flexible approach to the problem of attributing knowledge (or other mental elements) to a corporate body. The "directing mind" model in *Tesco Supermarkets, Ltd. v. Nattrass*<sup>93</sup> should not be regarded as the *exclusive* tool for attributing culpability to a company. It is relevant to examine the language of the particular statute or offense, its content, and policy. In acknowledging the need for a more sensitive test of corporate attribution, *Meridian* takes corporate liability principles further into the interstices of the company's decision-making structures. As Lord Hoffmann put it:

[T]here will be many cases in which neither of these solutions is satisfactory; in which the court considers that the law was intended to apply to companies and that, although it excludes ordinary vicarious liability, insistence on the primary rules of attribution would in practice defeat that intention. In such a case, the court must fashion a special rule of attribution for the particular substantive rule.<sup>94</sup>

*Meridian* appeared to be an invitation to courts to look with an open mind at the attribution rules for the offense of corporate man-

---

90. Until recently, civil law jurisdictions have eschewed the notion of corporate criminal liability altogether. *But see* ALBIN ESER, CRIMINAL RESPONSIBILITY OF LEGAL AND COLLECTIVE ENTITIES: INTERNATIONAL COLLOQUIUM, BERLIN, MAY 4-6, 1988 (1999).

91. *See* *Tesco Supermarkets, Ltd. v. Nattrass*, [1972] App. Cas. 153 (1971) (Eng.).

92. [1995] 2 App. Cas. 500 (P.C. 1995) (Eng.) (appeal taken from N.Z.).

93. [1972] App. Cas. 153 (1971) (Eng.).

94. *Meridian Global Funds Management Asia, Ltd. v. Securities Commission*, [1995] 2 App. Cas. 500 (P.C. 1995) (Eng.) (appeal taken from N.Z.).

slaughter.<sup>95</sup>

This is the approach emphatically rejected by the Court of Appeal in the GWT case on the formalistic grounds that Lord Hoffmann, in *Meridian*, accepted that the “directing mind and will” approach of the identification rule would still apply in some cases. He could hardly have done otherwise given the constraints of precedent. Lord Hoffman did provide a possible route to the limitations of that doctrine. There was no binding decision on manslaughter by a corporation and the courts could, had they been so minded, have followed Lord Hoffman’s lead. Because manslaughter is unique among serious offenses by having a negligence threshold,<sup>96</sup> there was even more reason to look critically at this version of the identification principle because it developed to deal with subjective mental states such as dishonesty and intention to defraud.

If it is to apply at all to corporations, it is important that law applies effectively to large diffuse organizations, especially where they are engaged in enterprises carrying risks to the safety of the public. Modern corporations are fragmented and decentralized. They do not conform to the management image prevailing at the time of *Tesco*. As one commentator noted of *Meridian*: “Organisation theory and practice have certainly moved away from the simple vertical command-and-control model of how a company functions. In an age of flatter corporate hierarchies, ‘empowered’ front-line employees and devolved decision-making, Lord Hoffmann’s decision has considerable resonance in the real commercial world.”<sup>97</sup>

In parallel with the developments over the last ten years in England and Wales, there has been a rise in the number of corporate manslaughter prosecutions in the common law world, particularly in the United States and Australia. This is seen partly as a response to the failure of federal health and safety agencies to vigorously pursue prosecutions in relation to workplace. Roughly thirty American states, either legislatively or judicially, have adopted corporate liability principles, many of which echo the broad federal attribution rules whereby a corporation is liable for the acts committed by its agents acting within the scope of their authority.<sup>98</sup> However, some states limit attribution to the acts of high managerial agents, which is, nonetheless, wider than the *Tesco* formulation.

---

95. The attempt to prosecute Great Western Trains without naming a director of the company followed the spirit of these developments. The outcome of the case sends a clear message that if change is to come, it will be via legislative reform. See HOME OFFICE, REFORMING THE LAW ON INVOLUNTARY MANSLAUGHTER: THE GOVERNMENT’S PROPOSALS (2000).

96. See *R v. Adomako*, [1995] 1 App. Cas. 171 (1994) (Eng.).

97. J. Gray, *Company Directors and Ignorance of the Law*, 17 COMPANY LAW 2299 (1996).

98. See generally Kathleen F. Brickey, *Rethinking Corporate Liability Under the Model Penal Code*, 19 RUTGERS L.J. 593 (1988).

Corporations have been held liable for manslaughter or reckless homicide in many American states. As in England and Wales, it has often proved easier to obtain convictions against smaller companies than against national and multinational corporations.<sup>99</sup> This underlines the need for a rule of attribution for corporate liability that is responsive both to small and large enterprises.

In England and Wales, the Law Commission, acknowledging some of the obstacles to a successful prosecution against a large company with a management divorced from operational concerns, has recommended the introduction of a separate offense of corporate killing.<sup>100</sup> Instead of relying on culpability tests that apply equally to human and corporate defendants, as it does now, the offense would be based on "management failure." A corporation would be guilty of corporate killing if: "(a) management failure by the corporation is the cause or one of the causes of a person's death, and (b) that failure constitutes conduct falling far below what can reasonably be expected of the corporation in the circumstances."<sup>101</sup> Management failure would be evidenced when the way in which its activities are managed or organized fails to ensure the health and safety of persons employed in, or affected by, those activities. The Commission suggests that the penalty should be a fine together with the possibility of making remedial order. A version of this recommendation is likely to be legislated in the next Parliamentary Session (2000-01).

### C. Tort Law

This article has previously argued that an over-emphasis on tort law is unhelpful in examining comparative disaster responses. The steep rise in tort litigation is well-documented,<sup>102</sup> but as has already been mentioned, tort litigation plays a much less significant role in personal injury settlements in the United Kingdom. Personal injury law has been described as a lottery, with fewer than twelve percent of those injured in accidents instituting claims.<sup>103</sup> Disaster victims, because they have the benefit of numbers, are less likely to be deterred from making a claim. In this section, the article will look first at some procedural solutions to mass disaster claims. Second, it will examine the adaptation of fundamental principles of tort law to deal with the challenge of disasters, including issues relating to post-traumatic stress disorder claims. Running

---

99. See Ira Reiner & Jan Chatten-Brown, *When it is not an Accident, but a Crime: Prosecutors Get Tough with OSHA Violations*, 17 N. KY. L. REV. 83, 97 (1989).

100. See LAW COMMISSION, *LEGISLATING THE CRIMINAL CODE: INVOLUNTARY MANSLAUGHTER*, No. 237 (1996).

101. *Id.*

102. See B.S. MARKESINIS & SIMON F. DEAKIN, *TORT LAW* 133 (4th ed. 1999).

103. See generally P.S. ATIYAH, *ATIYAH'S ACCIDENTS, COMPENSATION, AND THE LAW* (Peter Cane ed., 6th ed. 1999).

through the section are two themes—one is the way in which tort laws have adapted to disasters and the second highlights some specific aspects of tort law and practice in the United Kingdom.

*i. Procedural Differences*

There are important differences between the contexts in which tort law operates in the United States and in England and Wales. Briefly, there are no class actions, no juries, and no exemplary damages in the United Kingdom. Pragmatic solutions to multiparty actions have enabled test cases to be processed through the courts.<sup>104</sup> The absence of contingency fees in the United Kingdom has also affected the funding of actions. Conditional fee agreements will, however, play an increasingly significant role in litigation funding.

Multiparty actions are not a major feature in English tort law and few practitioner or student texts deal with them in any detail.<sup>105</sup> The English equivalent to Rule 23<sup>106</sup> of the Federal Rules of Civil Procedure has been interpreted very restrictively.<sup>107</sup> Multiparty actions emerged more strongly in the 1970's when multiple claims for industrial workers affected by asbestosis and silicosis were funded by trades unions. Learning from the way complex litigation was handled in the United States, English lawyers began to develop case management techniques to handle claims following disasters. Generally, English developments have been restricted and restrained. Group action does not mean that one claimant sues on behalf of all the victims but that the litigation of individuals is organized around issues common to all the cases. The "lead" cases on which the court concentrates are simply convenient for the court to consider first—proof is still required in each case.

Using a power acquired in 1993 to fund contract arrangements, the Legal Aid Board funded thirteen actions at a cost of £14 million in the first five years.<sup>108</sup> However, the ruling in the Opren drug case that the costs had to be shared equally amongst all claimants demonstrates again the problems of a system reliant on a means-tested legal aid scheme

---

104. See Mary J. Davis, *Toward the Proper Role for Mass Tort Class Actions*, 77 OR. L. REV. 157 (1998); Steven Hedley, *Group Personal Injury Litigation and Public Opinion*, 14 LEGAL STUD. 70 (1994).

105. As Hedley, *supra* note 104, points out, there is not even a settled terminology. The terms, group actions, multiparty actions, and mass actions are used interchangeably.

106. FED. R. CIV. P. 23.

107. See Rules of the Supreme Court 1965 Ord. 15, r. 12 (Eng.) *reprinted as amended*, in THE CIVIL PROCEDURE RULES 1999, at 846 (The Right Hon. Lord Justice May). "Where numerous persons have the same interest in any proceedings, . . . the proceedings may be begun, and, unless the Court otherwise orders, continued, by or against any one or more of them as representing all or as representing all except one or more of them." *Id.* All members of the class must have the same interest and the same grievance and damages cannot be paid to the class, only to the individual. See Prudential Assurance Co. v. Newman Indus., [1981] Ch. 229 (1981) (Eng. C.A.).

108. See Tim Weekes et al., *Multi-Party Actions*, THE LAW SOCIETY, Dec. 10, 1997, at 21.

without the benefit of contingency fees.<sup>109</sup> Many of the claimants would not be able to claim legal aid and, therefore, would not take the risk of funding the litigation.<sup>110</sup> However, the recognition of post-traumatic stress disorder claims in settlements following disasters in the 1980's was a boost to the development of multiparty procedure.<sup>111</sup>

Single event disasters lend themselves more easily to group actions and, on a practical level, the Law Society<sup>112</sup> provides a Disaster Coordination Service.<sup>113</sup> There are clear benefits to plaintiffs in forming a group rather than pursuing individual actions. These benefits include: the opportunity to pool knowledge, experience and contacts, achieving economies of scale, and opening up the possibility of litigation in foreign jurisdictions. Defendants may recognize the advantages of dealing with a group in negotiating a settlement and are known to have paid the costs of the steering group in some cases.<sup>114</sup> The groups will not necessarily be represented by the same firm of solicitors, and, in fact, are unlikely to be unless it is a very local disaster or an action for an industrial disease. Often, a steering committee will be formed to act on behalf of the group but defendants may seek to make the lawyers personally responsible for costs, as happened in the tobacco litigation.<sup>115</sup>

Funding of litigation is another area of difference between the United States and the United Kingdom. Before the gradual introduction of conditional fee arrangements under legislation enacted in 1990, the costs rules under which the loser was liable for the other side's costs as well as her own, were a major deterrent to non-legal-aid litigation. Legal aid itself, based on rigorous means tests, has been available to an increasingly narrow band of claimants during the last fifteen years.<sup>116</sup> The Courts and Legal Services Act 1990 allows lawyers to enter agreements with claimants whereby no fees are payable by the claimants if they lose, while if they win, their lawyers would recover fees together with an agreed mark-up (not exceeding 100 percent of the fees) from

---

109. See *Davies v. Eli Lilly Co.*, [1987] 1 W.L.R. 1136 (C.A. 1987) (Eng.).

110. See *id.* See also *infra* note 116 and accompanying text.

111. See Terrence Shaw, *In the Litigation Following the Sinking of the Herald of Free Enterprise*, THE DAILY TELEGRAPH, Apr. 29, 1989, at 6; Weekes et al., *supra* note 108, at 20.

112. The Law Society is the representative and regulatory body for solicitors in England and Wales.

113. Solicitors involved in any particular disaster litigation can also be found through associations such as the Association of Personal Injury Lawyers ("APIL") or the Action for Victims of Medical Accidents ("AVMA").

114. See William McBryde & Dr. Christine Barker, *Solicitors Groups in Mass Disaster Claims*, 141 NEW L.J. 484 (1991); see also *Piper Alpha Settlement*, LAW SOCIETY GAZETTE, July 12, 1989, at 3 (discussing the Piper Alpha oil rig settlement).

115. See *Hodgson v. Imperial Tobacco, Ltd.*, [1998] 1 W.L.R. 1056 (C.A. 1998) (Eng.).

116. See Courts and Legal Services Act 1990, § 58(1) (Eng.), amended by Access to Justice Act 1999 (Eng.) (commencing Apr. 1, 2000, Legal Aid is now provided by the Legal Services Commission). See also Peter Kunzlik, *Conditional Fees: The Ethical and Organisational Impact on the Bar*, 62 MOD. L. REV. 850 (1999); Geoffrey Woodroffe, *Loser Pays and Conditional Fees—An English Solution?*, 37 WASHBURN L.J. 345 (1998).

the damages.<sup>117</sup> The tobacco litigation signaled an early warning that conditional fees would not necessarily be the answer to mass tort litigation. The claimants were not insured against having to meet the defendant's costs if they lost. In some circumstances, the lawyers themselves become personally liable for the defendant's legal costs. The plaintiffs' solicitors, thus, sought an order that would debar such an eventuality. The court ruled that neither the conditional fee arrangement nor the fact that this was a group action affected the normal rules and, thus, no guarantee could be given that the solicitors would not be liable.<sup>118</sup> Although such liability is unlikely,<sup>119</sup> the risk was not one the lawyers were willing to take.

It is too early to assess the combined impact of the major overhaul in civil procedure in 1999<sup>120</sup> and the emphasis on conditional fees as the preferred method of funding personal injury litigation on claims following disasters. While there is no doubt that these radical changes will alter the face of the civil justice process in general, the different and difficult questions that disaster litigation already poses may not be so obviously affected.

## *ii. Damages*

The level of damages available to claimants is another area of important distinction between the United States and the United Kingdom. Aggravated damages are available in increasingly limited circumstances in the United Kingdom. Any increased pain and suffering that the defendant's behavior has caused should be reflected in general damages.<sup>121</sup> Punitive damages are awarded only in very specific circumstances and then very exceptionally; they are not available in either negligence or public nuisance claims.<sup>122</sup> The Law Commission favors extension of the categories in which punitive damages may be obtained to all civil claims, abandoning the "existing cause of action" approach of current law.<sup>123</sup>

One of the difficulties disasters present for the substantive law of

---

117. See Conditional Fee Agreements Order 1998, S.I. 1998, No. 1860 (Eng.).

118. See *Hodgson v. Imperial Tobacco, Ltd.*, [1998] 1 W.L.R. 1056 (C.A. 1998) (Eng.). An attempt to reinstate the litigation was time-barred. See *Hodgson v. Imperial Tobacco, Ltd.*, S97/113-116 (Feb. 4, 1999) (Wright, J.).

119. The risk of lawyer liability can arise in two (possibly three) circumstances: (1) as wasted costs, see Supreme Court Act 1981, § 51(6) (Eng.); (2) under the court's inherent jurisdiction (in relation to costs against solicitors and not barristers); and (3) general jurisdiction as to costs, see Supreme Court Act 1981, § 51(1), (3) (Eng.).

120. See Civil Procedure Rules 1998, S.I. 1998, No. 3132 (Eng.).

121. See *AB v. South West Water Servs., Ltd.*, [1993] Q.B. 507 (1992) (Eng. C.A.).

122. See *Rookes v. Barnard*, [1964] App. Cas. 1129 (1964) (Eng.) (noting that the House of Lords recognized only three classes of punitive damages: oppressive action by government, where the defendant's conduct was calculated to make a profit that would exceed the compensation, and where authorized by statute (which is rare)).

123. LAW COMMISSION, AGGRAVATED, EXEMPLARY AND RESTITUTIONARY DAMAGES, No. 247 (1997). See also Peter Jaffey, *The Law Commission Report on Aggravated, Exemplary and Restitutionary Damages*, 61 MOD. L. REV. 860 (1998).

torts is that of causation. First, the harms and injuries caused are rarely finite. Environmental disasters have indeterminate ends. Second, disasters may not respect geographical, political, or legal boundaries. Additionally, there may be indeterminate causal links between events and an individual plaintiff. Third, the defendant, in some cases, is indeterminate. Where more than one manufacturer or company is involved in producing drugs or in polluting the environment, there are difficulties in establishing precisely who caused how much damage.<sup>124</sup>

In a movement that has had little impact so far in the United Kingdom, a rule of market share liability has emerged in some U.S. courts. Because of the peculiarity of generic drug manufacturing, it is not always possible to identify which manufacturer supplied a particular plaintiff. Courts have allowed people affected by the drug diethylstilbestrol ("DES") (which in some cases caused birth injuries) to use special "cause-in-fact" rules to overcome the normally strict causation rule in tort that only a person who is shown to have caused the plaintiff's injury can be held liable to compensate.<sup>125</sup> In *Sindell v. Abbott Laboratories*,<sup>126</sup> plaintiffs could point to a group of possible causal actors that probably, but not certainly, included the actual responsible party.<sup>127</sup> Each would be liable but limited as damages proportionate to the defendant's share of total sales of the drug.<sup>128</sup> The court claimed that this was not a breach of individual responsibility on the ground that "each defendant would pay no more than the aggregate injuries caused by its own actions."<sup>129</sup> Yet, it is a distinct departure from traditional causation principles.

The DES litigation concerned the "indeterminate defendant;" there are also problems with "indeterminate plaintiffs." An example of the difficulties to which the latter could give rise is outlined by Baruch Bush.<sup>130</sup> A chemical leak exposes 1000 individuals to a toxic agent known to cause a particular kind of cancer. That cancer occurs "naturally" at certain levels. There is an increase in the number of cancer cases following the leak. In relation to any particular plaintiff, it would be impossible to establish whether it would have "naturally" occurred or was one of the increased number from the leak.

Two different arguments, risk contribution and loss of expected value, have been made to justify awards of compensation in these inde-

---

124. Classically illustrated in JONATHAN HARR, *A CIVIL ACTION* (1995).

125. See *Sindell v. Abbott Laboratories*, 607 P.2d 924 (Cal. 1980), *cert. denied*, 449 U.S. 912 (1980).

126. 607 P.2d 924 (Cal. 1980).

127. See *id.* at 925-28. See generally D.W. ROBERTSON ET AL., *CASES AND MATERIALS ON TORTS* 150-51 (2d ed. 1998); Robert A. Baruch Bush, *Between Two Worlds: The Shift from Individual to Group Responsibility in the Law of Causation of Injury*, 33 UCLA L. REV. 1473 (1986).

128. See *Sindell*, 607 P.2d at 938.

129. Baruch Bush, *supra* note 127, at 1485 (citing *Sindell*, 607 P.2d at 937-38).

130. See *id.* at 1486.

terminate cases.<sup>131</sup> Risk contribution is based on the idea that liability is imposed for the creation of a risk and liability is apportioned according to the magnitude of the risk. A defendant will pay to a series or group of individual victims an amount roughly equal to the aggregate damage he caused to some of the victims in that group. The total damages paid by each defendant will approximate the aggregate harm he inflicted.<sup>132</sup>

Lost value relies on statistical evidence to assess the victim's pre-injury "value."<sup>133</sup> This is established via statistical evidence relating to the group to which the plaintiff belongs. In some cases, the statistical probability will obviously not occur. Under this principle, however, a claim could be made, not for actual injury, but potential injury.

Courts in the United States have, at times, displayed some sympathy with both of these principles.<sup>134</sup> In one case, concerning radiation from nuclear tests in the Nevada Desert, the primary evidence was statistical correlation.<sup>135</sup> It was held that where a defendant negligently creates a radiological hazard, which puts an identifiable population group at increased risk, a fact finder may reasonably conclude that the hazard caused the condition.<sup>136</sup> A settlement reached in relation to the Vietnam veterans claiming damage from Agent Orange and approved by a federal court was awarded to a group and distributed on a pro rata basis.<sup>137</sup> *In Re Agent Orange* "may become a precedent for future toxic torts decisions that recognize and apply the theory of group responsibility to both defendants and plaintiffs."<sup>138</sup>

The question that has exercised commentators is whether the market share rule violates or accords with either a utilitarian or a corrective justice philosophy of tort law. Corrective justice sees the tort system as an expression of values of individual responsibility for harm to others. It institutionalizes an exchange between the injured and the person causing that injury, through an expression of regret. In corrective justice accounts of tort, the act and harm are significant, not attitude or wealth.

Both this, and utilitarian theories that seek to maximize the overall social utility in fashioning liability rules, depend, it is argued, on a con-

---

131. See *id.* at 1490-93.

132. See *id.* at 1490 (citing Glen O. Robinson, *Multiple Causation in Tort Law: Reflections on the DES Cases*, 68 VA. L. REV. 713 (1982)).

133. See *id.* (citing Joseph H. King, Jr., *Causation, Valuation, and Chance in Personal Injury Torts Involving Preexisting Conditions and Future Consequences*, 90 YALE L.J. 1353 (1981)).

134. See *Allen v. United States*, 588 F. Supp. 247 (D. Utah 1984), *rev'd on other grounds*, 816 F.2d 1417 (10th Cir. 1987), *cert. denied*, 484 U.S. 1004 (1988); *In Re Agent Orange Product Liability Litigation*, 597 F. Supp. 740 (E.D.N.Y. 1984), *aff'd*, 818 F.2d 145 (2d Cir. 1987), *cert. denied*, 484 U.S. 1004 (1988); *Collins v. Eli Lilly Co.*, 342 N.W.2d 37 (Wis. 1984), *cert. denied*, 469 U.S. 826 (1984).

135. See *Allen*, 588 F. Supp. at 247.

136. See *id.*

137. See *In Re Agent Orange*, 597 F. Supp. at 740.

138. Baruch Bush, *supra* note 127, at 1497.

cept of individual responsibility. Utilitarian theory assumes that tort law creates incentives for behavior that minimizes social costs, and corrective justice is premised on the view that tort law exists to correct injustices committed by one individual (or group entity such as a corporation) against another.<sup>139</sup>

Writers worry that the tort system increasingly functions as a cloak behind which a judge may hide while playing Robin Hood, taking money from a wealthy corporation and giving it to poor accident victims regardless of whether the corporation has violated the accident victim's rights and regardless of whether imposing liability will do more harm than good.<sup>140</sup>

### *iii. Post-traumatic Stress Disorder*

Although many civil claims are settled without subsequent court action, several recent post-traumatic stress disorder claims have culminated in decisions in the House of Lords, most notably those in relation to the Hillsborough football stadium disaster.<sup>141</sup> Psychological stress accompanied by physical injury caused by another's negligence generally gives rise to no difficulty in terms of legal compensation. But the net psychological effect will often fall much wider. There is now wide acceptance that the psychological effects of disaster extend beyond the immediate aftermath and affect not only survivors but those engaged in rescue and relief work or involved through kinship though not actually present at the scene. Some, but not all, of these may be able to recover. Two recent trends are noticeable. One is the development of a fuller understanding of the potential disasters have for causing severe psychological damage. The other, perhaps not unconnected, tendency has been a restrictive attitude from the appellate courts.<sup>142</sup>

Legal recovery for psychological damage, quaintly termed "nervous shock," pre-dates the naming of post-traumatic stress disorder ("PTSD"). At first, English courts were reluctant to acknowledge psychological damage but, by the beginning of the century, recovery was allowed where the shock was a direct result of fear for one's own personal safety at the scene of an accident.<sup>143</sup> This was extended to fear for the safety of one's immediate family,<sup>144</sup> but not to a mere bystander who was present at, or came upon, the aftermath.<sup>145</sup>

Trauma resulting from fear for one's own life is the most clearly

---

139. *See id.* at 1476.

140. Allen Strudler, *Mass Torts and Moral Principles*, 11 LAW & PHIL. 297, 297 (1992).

141. *See infra* note 147 and accompanying text.

142. *See* Derek Morgan, *Relatively Late Payments: Damages Beyond Death and Bereavement*, in DEATH RITES: LAW AND ETHICS AT THE END OF LIFE (Derek Mogan & Robert Gregory Lee eds., 1994).

143. *See* *Dulieu v. White & Sons*, [1901] 2 K.B. 669 (1901) (Eng.).

144. *See* *King v. Phillips*, [1953] 1 Q.B. 429 (1953) (Eng. C.A.).

145. *See* *Bourhill v. Young*, [1943] App. Cas. 42 (1942) (Eng.).

recognized category. The category causing the most soul-searching has undoubtedly been that where the trauma arises, not from fear of one's own safety, but from fear for others. Here the courts originally required presence at the scene and sight of the accident as well as a clear and close relationship with those for whom the fear was felt. That type of relationship appeared confined to spouse, parent, or child. This was extended in the 1980's to cover cases where the plaintiff witnessed the immediate aftermath.<sup>146</sup>

It was against this background that many recent disaster settlements included claims for psychological stress. In most of these cases, there was little difficulty in establishing that people were either clearly within the accepted categories because they feared for themselves or their close relatives or clearly outside because they did not come upon the immediate aftermath. Hillsborough proved to be the breaking point, where two different groups of claimants sought to use this new elasticity to recover damages for psychological stress. The first group was present at the stadium but was not in danger itself. It was comprised of witnesses to an event who feared for the lives of their non-immediate family, such as siblings or in-laws. The other group was comprised of closer relatives who witnessed the unfolding tragedy on television or radio and who later identified the bodies of their loved-ones in the mortuary.

In *Alcock v. Chief Constable of the South Yorkshire Police*,<sup>147</sup> the House of Lords held that these two groups fell outside the legal limits for compensation. Ninety-five people were killed and 400 were injured when South Yorkshire police, who were responsible for crowd control, allowed too many supporters into the terraces at one end of the pitch. As more entered the back of the standing area, those already there were pushed against the mesh barrier dividing them from the pitch. When the match started, the crowds surged causing those in the front part of the terrace to be crushed. Scenes from the ground were broadcast live on television and recordings were shown later. The Chief Constable of South Yorkshire admitted liability in negligence with respect to deaths and physical injuries.<sup>148</sup> The House of Lords was unanimous in holding that PTSD must arise in the immediate aftermath of the event.<sup>149</sup> Viewing the body eight hours later in the mortuary was not close enough.<sup>150</sup> The tension between the legal construction of death as a "normal" occurrence for which fortitude can be expected, and the de-

---

146. See *McLoughlin v. O'Brian*, [1983] App. Cas. 410 (1982) (Eng.).

147. [1992] 1 App. Cas. 310 (1991) (Eng.).

148. See *Alcock v. Chief Constable of the South Yorkshire Police*, [1992] 1 App. Cas. 310 (1991) (Eng.).

149. See *id.*

150. See *id.*

velopment of greater knowledge of the psychology of the bereavement process, is again evident. The fact that some people do suffer severe psychological trauma while others do not is no different than the fact that some people have thick skulls and others thin. But while the law copes with physical difference by holding defendants liable for the particular victim, psychological difference is translated into categories of liability.

The technology of communications means that, even with the immediate aftermath limitation on liability, a person could be both miles away, and also contemporaneously witnessing the disastrous event. Again, the House of Lords was keen to keep a secure lid on the box it had been asked to investigate. Presence at the scene within sight or hearing, brings a person within the frame. Those at the ground were counted as sufficiently proximate witnesses, but the television viewers and radio listeners were not.<sup>151</sup>

To recover, the plaintiffs not only needed to prove that they suffered PTSD, but also that they had the right relationship with the deceased and were present at the scene of the disaster. Although the result in *Alcock* must have appeared to the appellants to be verging on the capricious, it makes a certain sense in relation to the history of nervous shock cases. Its major failing is that it leaves open too many opportunities for litigation and too few guidelines for settling cases. The reality of the civil-claims process, in the sphere of disasters, is that it is easier to fend off a claim than to pursue one. Defendants are usually corporate bodies, backed by insurance, with much to gain from delay and dispute. The decision encourages defendants to force psychologically damaged plaintiffs to provide evidence of a "particularly close tie" with a relative outside the presumed class or to displace the presumption that a parent was emotionally close to their dead child, or that a wife was attached to her dead husband.

*Alcock* maintains the distinction between primary and secondary victims. A primary victim is one who either suffers psychiatric harm from being directly involved in the accident through either physical injury or fear of injury. Primary victims then suffer psychiatric injury on account of their own physical vulnerability. Secondary victims are those whose psychiatric disorder arises from witnessing or being informed about an accident involving another.

Primary victims can recover damages for psychiatric as well as physical injury.<sup>152</sup> A secondary victim must satisfy a number of (essentially arbitrary) conditions: that they were not abnormally susceptible to psychiatric illness; that the illness was sustained by shock; that

---

151. *See id.*

152. *See Page v. Smith*, [1996] 1 App. Cas. 155 (1995) (Eng.).

they were in physical proximity to the accident or its aftermath; and that they had a close personal or familial relationship with the accident victims.

There are also limitations on the recoverability of professional rescuers. The police officers on duty at Hillsborough were not allowed to recover for psychiatric damage.<sup>153</sup> They were classified as secondary victims and accorded no special status as rescuers. It would seem that rescuers must be classified as primary victims to recover or come within the familial tie conditions laid down in *Alcock*.<sup>154</sup>

## V. CONCLUSION

Our aim in this article has been to contextualize disasters and the legal responses to them in order to give a framework for comparative analysis of mass torts. The concept of disaster is contingent and changing much as the relationship between different sites of legal activism shift over time. Law's infinite capacity to postpone, defer, and deflect can be seen clearly in examining responses to disasters, and shifts in our understanding of events and our expectations of legal institutions take place against a resilience in those same institutions. Law, in its many guises, is a fascinating repository, a silt, for the fears and uncertainties in everyday life.<sup>155</sup> Criminal law is the prime site for symbolism and blame but it operates in tandem with many other layers of legal institutions. Where hooligans and gangs once fully occupied the imagination of "bad behavior," their tenancy is challenged by mass transport, global communication, and a skeptical reception of science. The assumptions individuals make about law are connected with our understanding of the world. Historical, social, technological, and cultural factors affect perceptions of risk and hazard, perceptions of harms caused and to whom we attribute blame, as well as influencing the expectations we have of legal institutions. As this article has argued, the architecture of those legal institutions varies across jurisdictions with some more strongly rooted in private law solutions while others may be buttressed by substantial public health and welfare provision. Only when all these factors have been calibrated can we begin to appreciate the subtle roles that tort law and its legal cousins might play.

---

153. See *White v. Chief Constable of the South Yorkshire Police*, [1999] 2 App. Cas. 455 (1998) (Eng.).

154. See MARKESINIS & DEAKIN, *supra* note 102.

155. See Shapo, *supra* note 76.