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## ARTICLES

### THE REASONABLE PERSON

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*The Article sets forth a conclusive answer to one of the most fundamental questions in tort law, which has bedeviled and divided courts and scholars for centuries: Should reasonableness be a normative or a positive notion? Put differently, should the reasonable person be defined in accordance with a particular normative ethical commitment, be it welfare maximization, equal freedom, ethic of care, and so forth, or in accordance with an empirically observed practice or perception? Only after answering this question can one move on to selecting a concrete definition of reasonableness. Our own answer is radical but inescapable: Only normative definitions are logically acceptable. The Article does not endorse a particular definition of reasonableness. Instead, it focuses on the fundamental choice between the two conflicting paradigms. We put forward and defend the thesis that normative definitions are categorically preferable to positive definitions, because the latter are logically unacceptable, whereas the former merely raise partially surmountable practical problems. Although the Article focuses on the reasonable person in torts, the implications of our analysis are far-reaching, because the concept of reasonableness prevails in most areas of American law.*

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## INTRODUCTION

This Article provides an innovative and definite answer to the most fundamental inquiry about the reasonable person in tort law: Should reasonableness be a *normative* or a *positive* notion? Put differently, should the reasonable person be defined in accordance with a particular normative ethical commitment, be it welfare maximization, equal freedom, ethic of care, and so forth, or in accordance with an empirically observed practice or perception?

The reasonable person test is the traditional test for compliance with the duty of care in torts.<sup>1</sup> Negligence arises from doing an act that a reasonable person would not do under the circumstances, or from failing to do an act that a reasonable person would do.<sup>2</sup> The same test is applied to determine whether a plaintiff was contributorily negligent.<sup>3</sup> The reasonable person is a legal concept that can be imbued with different content.<sup>4</sup> The primary question has always been whether the content should be normative or positive,<sup>5</sup> a query interwoven with the general metaethical distinction between the normative and the positive first enunciated by David Hume in the eighteenth century.<sup>6</sup> Only after answering this fundamental question can one come to a concrete definition of reasonableness. Our own answer is radical but inescapable: Only normative definitions are logically acceptable.

The contradictory paradigms of reasonableness may be illustrated by two celebrated hornbook cases, *United States v. Carroll Towing Co.*<sup>7</sup> and *Osborne v. Montgomery*.<sup>8</sup> In *Carroll Towing Co.*, a barge broke adrift, collided with a tanker, and sank. While discussing the barge owner's contributory negligence, Judge Learned Hand held that "the owner's duty . . . is a function of three variables: (1) The probability that [the ship] will break away; (2) the gravity of the resulting injury, if she does; [and] (3) the burden of adequate precau-

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<sup>1</sup> See, e.g., *Blyth v. Birmingham Waterworks Co.*, (1856) 156 Eng. Rep. 1047, 1049; 11 Exch. 781, 784 ("Negligence is the omission to do something which a reasonable man . . . would do, or doing something which a prudent and reasonable man would not do."); RESTATEMENT (SECOND) OF TORTS § 283 (1965) (explaining that the standard of care is that of a reasonable man); Francis H. Bohlen, *The Probable or the Natural Consequence as the Test of Liability in Negligence*, 49 AM. L. REG. 79, 83 (1901) ("The test is the conduct of the average reasonable man—not the ideal citizen, but the normal one."); Stephen G. Gilles, *On Determining Negligence: Hand Formula Balancing, the Reasonable Person Standard, and the Jury*, 54 VAND. L. REV. 813, 822–23 (2001) ("For as long as there has been a tort of negligence, American courts have defined negligence as conduct in which a reasonable man . . . would not have engaged.").

<sup>2</sup> Benjamin C. Zipursky, *Sleight of Hand*, 48 WM. & MARY L. REV. 1999, 2014–17 (2007).

<sup>3</sup> See, e.g., RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL AND EMOTIONAL HARM § 3 cmt. b (2010) ("The definition of negligence . . . applies whether the issue is the negligence of the defendant or the contributory negligence of the plaintiff.").

<sup>4</sup> Cf. Gilles, *supra* note 1, at 817 ("The discussion so far has emphasized the range of behavioral standards that could plausibly be used to explicate the reasonable person standard.").

<sup>5</sup> See *infra* Parts I.A.1, I.B.1, and I.C.1 (defining various normative conceptions of reasonableness); *infra* Part II.A (discussing the theory of positive reasonableness).

<sup>6</sup> DAVID HUME, A TREATISE OF HUMAN NATURE 469–70 (L.A. Selby-Bigge ed., 1896) (1740).

<sup>7</sup> 159 F.2d 169 (2d Cir. 1947).

<sup>8</sup> 234 N.W. 372 (Wis. 1931).

tions.”<sup>9</sup> Judge Learned Hand opined that “if the probability be called P; the injury, L; and the burden, B; liability depends upon whether B is less than L multiplied by P: [that is], whether  $B < PL$ .”<sup>10</sup> The so-called Hand formula is a normative definition of reasonableness. The standard is predetermined by a particular normative commitment—namely, cost efficiency—regardless of the prevailing perception in the relevant society. According to this formula, a person’s conduct is deemed unreasonable if he or she did not take cost-effective precautions, even if no one would consider these precautions necessary under the circumstances. And the conduct is deemed reasonable if it is cost-effective, even if no one truly believes it to be reasonable.

In *Osborne*, a cyclist was injured after colliding with a car and being thrown to the ground. The Supreme Court of Wisconsin held that “[w]e apply the standards which guide the great mass of mankind in determining what is proper conduct of an individual under all the circumstances.”<sup>11</sup> The standard, therefore, is the level of care that would be exercised under the same or similar circumstances by “the great mass of mankind”—that is, the “generally accepted standard.”<sup>12</sup> This is a positive definition of reasonableness, in the sense that it derives from reality rather than from morality.<sup>13</sup> According to this test, a person’s conduct is deemed unreasonable if people actually consider it so, even if that conduct is cost-effective. And it is deemed reasonable if people (or a certain portion of them) believe the conduct to be so, even if it is not cost-effective.

This Article does not endorse a particular definition of reasonableness. Rather, it focuses on the fundamental choice between the two competing paradigms. We put forward and defend the argument that normative definitions are categorically preferable to positive definitions because the latter are logically unacceptable. While we acknowledge that any definition deriving from a normative ethical theory may raise practical problems, such definitions are generally usable and may be developed and fine tuned to better serve their underlying rationales. In contrast, we show that a positive definition of reasonableness is a logical impossibility. Given the importance attributed to positive definitions in case law and academic literature, our argument is admittedly radical, but undoubtedly essential. Moreover, although this

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<sup>9</sup> 159 F.2d at 173.

<sup>10</sup> *Id.*

<sup>11</sup> *Osborne*, 234 N.W. at 375.

<sup>12</sup> *Id.* at 376.

<sup>13</sup> Admittedly, the court reverts to a rough cost-benefit analysis at some point. *See id.* (suggesting that a determination of liability requires weighing the benefits of certain behavior against the probable injury caused by that behavior).

Article focuses on the reasonable person in torts, the implications of our analysis are far-reaching because of the prevalence of the concept of reasonableness in most areas of American law.<sup>14</sup>

In Part I, we discuss normative definitions of reasonableness. Because the general nature, specifications, and limits of any such definition derive from the underlying ethical commitments, and because normative ethical theories may be mutually exclusive or at least inconsistent in fundamental respects, we have decided not to group all normative definitions together. Instead, we have selected the most salient definitions in modern Anglo-American discourse that stem from different normative ethical principles: welfare maximization, equal freedom, and the feminist ethic of care.<sup>15</sup> We show that the main type of criticism that can be leveled at these definitions is that applying them occasionally entails practical difficulties. Yet these difficulties arise mostly at the margins and do not undermine the legitimacy and applicability of the definitions in the vast majority of cases. Moreover, practical difficulties usually can be alleviated to some extent.

In Part II we discuss positive definitions of reasonableness, all of which share a common thread. They are founded on the idea that the reasonable person's characteristics can be deduced by observation. We do not study any specific positive definition, but instead construct a formal model of the reasonable person that allows us to study all such definitions simultaneously. The formal model is built with tools from a branch of economics known as social choice theory. This model is analogous to the groundbreaking theorem for which Kenneth J. Arrow was awarded the Nobel Prize in 1972. Arrow studied social welfare as a positive concept, in which the well-being of society derives from individual preferences. He conclusively demonstrated that this concept of social welfare is incoherent: It is impossible to derive social welfare from individual welfare without violating some of the most elementary requirements of welfare economics.

What Arrow did to social welfare, we do to the reasonable person. We introduce a general model in which the reasonable person derives from beliefs about reasonableness. We impose five axioms on the reasonable person; all of them are necessary characteristics of any

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<sup>14</sup> See Robert Unikel, Comment, "*Reasonable*" Doubts: A Critique of the Reasonable Woman Standard in American Jurisprudence, 87 Nw. U. L. REV. 326, 327 (1992) ("From its modest beginnings, 'reasonableness' has gained a prominent position in almost every area of American law. A general survey reveals that the concept of 'reasonableness' is a standard of decision making in administrative law, bailment law, constitutional law, contract law, criminal law, tort law, and the law of trusts.").

<sup>15</sup> These principles are discussed *infra* in this Subpart (welfare maximization) and also in Part I.B (equal freedom), and Part I.C (feminist ethic of care).

positive definition. These axioms require that: (a) the reasonable person will respect unanimous agreements; (b) holding all else constant, additional data in support of a particular conclusion will increase the probability that the conclusion is true; (c) the definition will not make *ex ante* distinctions between individuals in society; (d) the definition will not make *ex ante* distinctions between actions individuals may take; and (e) it will be possible, at least occasionally, to find some behavior unreasonable.

We demonstrate that a positive definition of the reasonable person cannot possibly satisfy these five properties. As a consequence, any statistical methodology used to study the reasonable person is necessarily invalid. Any judge or juror who claims to understand the nature of the reasonable person from his or her familiarity with society is mistaken. Such a task is not merely difficult or impractical—it is impossible. Whatever else these methods may estimate, they cannot possibly estimate the reasonable person.

## I

### NORMATIVE REASONABLENESS

#### A. *Welfare Maximization*

##### 1. *Definition*

The most prominent definition of reasonableness is worded in cost-benefit terms. This so-called economic definition holds that a person acts unreasonably if he or she takes less than the socially optimal level of care. The economic definition can be traced back to a series of cases decided by Judge Learned Hand in the 1940s, in which he related three variables in an algebraic inequality: If the probability of harm is labeled P, the severity of harm L, and the burden of precautions needed to eliminate the risk of harm B, “liability depends upon whether B is less than L multiplied by P: [that is], whether  $B < PL$ .”<sup>16</sup> Put differently, failure to take cost-justified precautions is negligent. Imposing liability on negligent injurers forces potential injurers to take into account, or internalize, the externalities of inefficient conduct, thereby preventing such conduct. According to economic wisdom, this deterrence of unreasonable risk is the primary objective of tort liability.<sup>17</sup>

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<sup>16</sup> *United States v. Carroll Towing Co.*, 159 F.2d 169, 173 (2d Cir. 1947); *see also* *Moisan v. Loftus*, 178 F.2d 148, 149 (2d Cir. 1949) (using similar terminology); *Conway v. O’Brien*, 111 F.2d 611, 612 (2d Cir. 1940) (same); *Gunnarson v. Robert Jacob, Inc.*, 94 F.2d 170, 172 (2d Cir. 1938) (same).

<sup>17</sup> *See, e.g.*, *Ind. Harbor Belt R.R. v. Am. Cyanamid Co.*, 916 F.2d 1174, 1181–82 (7th Cir. 1990) (explaining the allocative approach to tort law, in which “the emphasis is on

Recently, the *Restatement (Third) of Torts*<sup>18</sup> endorsed the economic definition of reasonableness. Section 3 of the Restatement provides that a person acts negligently if he or she does not exercise reasonable care under all the circumstances. It then stipulates that the “[p]rimary factors to consider in ascertaining whether the person’s conduct lacks reasonable care are the foreseeable likelihood that the person’s conduct will result in harm, the foreseeable severity of any harm that may ensue, and the burden of precautions to eliminate or reduce the risk of harm”<sup>19</sup>—the three variables in the Hand formula.<sup>20</sup> Section 3 appears to retreat from the Hand formula by describing these variables as primary rather than exclusive and by not incorporating them into an algebraic expression.<sup>21</sup> However, the comments to § 3 dispel this impression. Comment e explains that in identifying these as the primary factors for ascertaining negligence, § 3 adopts a “cost-benefit test” for negligent conduct, where the “cost” is that of the precautions and the “benefit” is the reduction in risk those precautions would achieve.<sup>22</sup> Conduct is negligent “if its disadvantages outweigh its advantages, while [it] is not negligent if its advantages outweigh its disadvantages.”<sup>23</sup> Comment f further explains that even if the likelihood of harm from the actor’s conduct is small, the actor can be held negligent if the possible harm is severe and the burden of precautions is limited.<sup>24</sup> Analogously, even if the foreseeable harm is not very severe, “the person can be negligent if the likelihood of harm is high and the burden of risk prevention limited.”<sup>25</sup> These comments highlight the dominance of the three variables and add the missing

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picking a liability regime (negligence or strict liability) that will control the particular class of accidents in question most effectively”).

<sup>18</sup> RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL AND EMOTIONAL HARM (2010).

<sup>19</sup> *Id.* § 3.

<sup>20</sup> See Stephen R. Perry, *Cost-Benefit Analysis and the Negligence Standard*, 54 VAND. L. REV. 893, 893–94 (2001) (explaining that § 3 enumerates the same three variables “that figure in the Learned Hand formula”); Kenneth W. Simons, *The Hand Formula in the Draft Restatement (Third) of Torts: Encompassing Fairness as Well as Efficiency Values*, 54 VAND. L. REV. 901, 902 (2001) (“[Section 3] employs a version of the Learned Hand formula.”).

<sup>21</sup> See Richard W. Wright, *Justice and Reasonable Care in Negligence Law*, 47 AM. J. JURIS. 143, 159 (2002) [hereinafter Wright, *Justice and Reasonable Care*] (explaining why § 3 seems to retreat from the Hand formula); Richard W. Wright, *Negligence in the Courts: Introduction and Commentary*, 77 CHI.-KENT L. REV. 425, 428 (2002) [hereinafter Wright, *Negligence in the Courts*] (noting that § 3 “lists the three Hand-formula factors as primary rather than exclusive factors to be considered”).

<sup>22</sup> RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL AND EMOTIONAL HARM § 3 cmt. e (2010).

<sup>23</sup> *Id.*

<sup>24</sup> *Id.* § 3 cmt. f.

<sup>25</sup> *Id.*

algebraic relation. The Hand formula, then, constitutes the basic template for determining negligence under § 3 of the Restatement.<sup>26</sup>

The reporters' note to comment d states that while the Hand formula is "generally supported by scholars who justify the rule of negligence liability by relying on considerations of deterrence or safety incentives," other scholars support it "for reasons of fairness or corrective justice."<sup>27</sup> Comment d to § 6 further explains that corrective justice and efficient deterrence are the two justifications for imposing liability under the proposed definition.<sup>28</sup> With regard to the former, comment d maintains that a person who exposes another to a risk that exceeds the burden he would have to bear in avoiding it "impermissibly ranks personal interests ahead of the interests of others," and thereby "violates an ethical norm of equal consideration."<sup>29</sup> In other words, the Restatement conceives itself to be a mechanism for the attainment of interpersonal justice.

In his early writings, Ernest Weinrib argued that the Hand formula was a manifestation of the Kantian imperative to value the interests of others as if they were one's own.<sup>30</sup> If the defendant treated the plaintiff's interests in compliance with this imperative, the defendant would balance the cost of precaution against the risk it would eliminate, even though the risk was imposed on another.<sup>31</sup> Several years later Gregory Keating proposed a comparable interpretation, in which the Hand formula balances the defendant's freedom of action against the plaintiff's security so as to maximize individual freedom.<sup>32</sup>

Yet any Kantian interpretation of the Hand formula is bound to fail for at least two reasons. First, these interpretations misread the formula as incorporating solely the interests of the plaintiff and the defendant. In fact, the Hand formula is aggregative: It balances social

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<sup>26</sup> See Gilles, *supra* note 1, at 849–50 (discussing the shift to defining negligence through the use of the Hand formula in the Discussion Draft of the *Restatement (Third) of Torts*); cf. Zipursky, *supra* note 2, at 2001 ("[The Restatement] expressly embraces a version of the Hand Formula, but stops short of a fully economic interpretation of it").

<sup>27</sup> RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL AND EMOTIONAL HARM § 3 reporters' note to cmt. d (2010).

<sup>28</sup> *Id.* § 6 cmt. d.

<sup>29</sup> *Id.*

<sup>30</sup> Ernest J. Weinrib, *Toward a Moral Theory of Negligence Law*, 2 L. & PHIL. 37, 52–53 (1983) (using the Kantian theory to explain the features of negligence).

<sup>31</sup> *Id.*; cf. *Parrott v. Wells, Fargo & Co.*, 82 U.S. (15 Wall.) 524, 538 (1872) ("The measure of care . . . is that which a person of ordinary prudence and caution would use if his own interests were to be affected, and the whole risk were his own."); *Heathcock v. Pennington*, 33 N.C. (11 Ired.) 640, 643 (1850) ("Ordinary care is that degree of it, which in the same circumstances a person of ordinary prudence would take of the particular thing, were it his own.").

<sup>32</sup> Gregory C. Keating, *Reasonableness and Rationality in Negligence Theory*, 48 STAN. L. REV. 311, 360–64 (1996).

advantages against social disadvantages.<sup>33</sup> Even if there were any doubts about the true meaning of the original Hand formulation, § 3 explicitly provides that the cost considered is not only the cost to the specific injurer, but to “the actor or others”; and the reduction in risk refers not only to the specific victim but to “the overall level of the foreseeable risk.”<sup>34</sup> Thus, the Restatement may be said to adopt an almost unconstrained, reductionist, utilitarian-economic test for negligence.<sup>35</sup>

Second, even a constricted version of the Hand formula that considers only the interests of the interacting parties is indefensible from an interpersonal justice perspective. A person who imposes a substantial risk on another for personal benefit is not adequately deferential to the equal dignity and autonomy of that other, even if the benefit clearly exceeds the expected loss.<sup>36</sup> Similarly, it seems unfair to oblige one person to assume a significant burden in order to rescue another from a danger she did not create, even if the burden is less than the expected utility of a rescue attempt.<sup>37</sup> As will be explained below, Weinrib retreated from his initial stance precisely on these grounds.

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<sup>33</sup> Judge Learned Hand explained that “[t]he degree of care demanded . . . is the resultant of three factors: the likelihood that [the] conduct will injure others, taken with the seriousness of the injury if it happens, and balanced against the interest which he must sacrifice to avoid the risk.” *Conway v. O’Brien*, 111 F.2d 611, 612 (2d Cir. 1940), *rev’d*, 312 U.S. 492 (1941). He spoke about the likelihood of injuring others generally, rather than a specific plaintiff, and about the interest that must be sacrificed, though not necessarily that of the specific defendant.

<sup>34</sup> RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL AND EMOTIONAL HARM § 3 cmt. e (2010); *see also id.* § 3 reporters’ note to cmt. b.

<sup>35</sup> *See* Steven Hetcher, *Non-utilitarian Negligence Norms and the Reasonable Person Standard*, 54 VAND. L. REV. 863, 864–66 (2001) (explaining that the Restatement adopted a utilitarian test for negligence); Wright, *Justice and Reasonable Care*, *supra* note 21, at 161 (“[T]he draft [Restatement] explicitly adopts an almost totally unconstrained, reductionist, cost-benefit test of reasonableness in negligence law.”); *see also* Heidi M. Hurd, *The Deontology of Negligence*, 76 B.U. L. REV. 249, 250, 266 (1996) (describing the Hand formula as “patently . . . consequentialist”). *But see* Simons, *supra* note 20, at 902 (contending that the Hand formula “accommodate[s] both economic and fairness accounts of negligence law”).

<sup>36</sup> *See* Perry, *supra* note 20, at 896–97 (explaining that exposing others to substantial risks is unjust, regardless of the ensuing benefit); Wright, *Negligence in the Courts*, *supra* note 21, at 427–28 (positing that it is disrespectful to the “dignity and autonomy of others,” and thus unjust, to expose others to “substantial unaccepted risks,” even if the actor’s gain surpasses the loss of another); *see also infra* note 119 and accompanying text (discussing how the imposition of risk on another only to yield greater benefits violates the Kantian principle of reasonableness).

<sup>37</sup> *See* Wright, *Negligence in the Courts*, *supra* note 21, at 428 (“[E]ven though it is morally praiseworthy for a person voluntarily to impose significant burdens or risks upon herself in order to attempt to rescue another from a dangerous situation that she did not create, it is not just to legally require her to do so, even if the risk to her seems to be substantially less than the expected utility of the rescue attempt.”).

To conclude, the Hand formula, and hence § 3, cannot be supported in terms of interpersonal justice.<sup>38</sup>

We are thus left with an aggregative consequentialist account. This is not to say that the Hand formula aims to maximize wealth. Although this view has been advocated by Judge Posner and his followers,<sup>39</sup> wealth maximization is a highly problematic normative goal,<sup>40</sup> and even law and economics scholars now tend to favor a more comprehensive economic paradigm—namely, welfare maximization.<sup>41</sup> We will assume, therefore, that the Hand formula is aimed at economic efficiency in this broad sense.

The raw Hand formula needs to be refined to equate negligence with inefficient conduct. First, the original Hand formulation balances the expected loss against the costs of eliminating the risk. In reality, eliminating risks is hardly ever feasible, so the relevant comparison should be between the cost of precaution and the ensuing reduction in expected loss. Section 3 clearly makes this modification.<sup>42</sup> Second, “[t]he formula is not explicit about whether accident costs and benefits are to be considered in the correct marginal rather than total terms.”<sup>43</sup> Section 3 does not use marginal terms either. As Landes and

<sup>38</sup> See Wright, *Justice and Reasonable Care*, *supra* note 21, at 170–71, 191 (“[T]he aggregate-risk-utility test cannot be reconciled with the concept of justice.”).

<sup>39</sup> See Richard A. Posner, *A Theory of Negligence*, 1 J. LEGAL STUD. 29, 32–33 (1972) (explaining the Hand formula in terms of societal wealth maximization). For a more general discussion of wealth maximization as a positive and normative goal, see WILLIAM M. LANDES & RICHARD A. POSNER, *THE ECONOMIC STRUCTURE OF TORT LAW* 16 (1987), and Richard A. Posner, *Wealth Maximization and Tort Law: A Philosophical Inquiry*, in *PHILOSOPHICAL FOUNDATIONS OF TORT LAW* 99 (David G. Owen ed., 1995).

<sup>40</sup> See generally, e.g., Ronald M. Dworkin, *Is Wealth a Value?*, 9 J. LEGAL STUD. 191 (1980) (discussing the problem with treating wealth maximization as a normative goal due to the implausibility of social wealth as an instrument toward a social goal).

<sup>41</sup> See Louis Kaplow & Steven Shavell, *Fairness Versus Welfare*, 114 HARV. L. REV. 961, 968, 977–80 (2001) (describing welfare economics as accommodating all factors relevant to individuals’ well-being, rather than just wealth, and advocating for the use of welfare economics in legal reform). There are many critical appraisals of this perspective. See generally Jules L. Coleman, *The Grounds of Welfare*, 112 YALE L.J. 1511 (2003) (critiquing Kaplow and Shavell’s account as failing to explain welfare’s value and role in legal evaluation while devaluing the appropriateness of justice and fairness); David Dolinko, *The Perils of Welfare Economics*, 97 NW. U. L. REV. 351 (2002) (critiquing Kaplow and Shavell’s approach as morally and intellectually deficient); Michael B. Dorff, *Why Welfare Depends on Fairness: A Reply to Kaplow and Shavell*, 75 S. CAL. L. REV. 847, 862–88 (2002) (arguing that fairness criteria are essential to policy outcomes, even when applying welfare economics).

<sup>42</sup> Section 3 explicitly refers to “the burden of precautions to eliminate or reduce the risk.” RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL AND EMOTIONAL HARM § 3 (2010). This point is emphasized in comment i. See *id.* cmt. i (“[T]he party alleging negligence need not prove that the precaution would have entirely eliminated the risk of harm. The party can instead prove that the precaution . . . would have reduced that risk.”).

<sup>43</sup> See LANDES & POSNER, *supra* note 39, at 87 (discussing marginal values); STEVEN M. SHAVELL, *ECONOMIC ANALYSIS OF ACCIDENT LAW* 6–9 (1987) (same).

Posner observed, one can interpret the Hand formula as applying to marginal values, thereby solving the apparent problem.<sup>44</sup> The reporters for the Restatement admit that courts do not normally do this,<sup>45</sup> but if courts wish to promote economic efficiency, they ought to use marginal values. Third, neither the Hand formula nor § 3 makes explicit reference to levels of activity, as opposed to levels of care. Therefore, a person may raise the level of activity above the optimum without being subject to liability as long as he or she takes the appropriate level of care.<sup>46</sup> In theory, this problem will be solved if we consider the reduction in activity level as a possible precaution, whose cost equals the marginal benefit of the activity. The Restatement seems to allow for this possibility, to a certain extent, in comment j.<sup>47</sup>

Doubts have grown in recent years about the centrality of the Hand formula in American tort practice. So it is unclear whether § 3's acceptance of the Hand formula is a genuine restatement of existing law. Academics have argued that § 3 "dramatically overstates the role of . . . cost-benefit analysis in the reasonable person standard, and . . . dramatically understates the role of [other] norms in this standard."<sup>48</sup> Indeed, the Hand formula is rarely cited and seldom applied by American courts.<sup>49</sup> Even in Louisiana, where appellate courts

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<sup>44</sup> LANDES & POSNER, *supra* note 39, at 87.

<sup>45</sup> See RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL AND EMOTIONAL HARM § 3 reporters' note to cmt. i (2010) (noting that courts "typically allow the plaintiff to identify the precaution the defendant might have taken, and then to compare the situation of the defendant's actual conduct to what the situation would have been had the defendant implemented the proposed precaution"). *But see* LANDES & POSNER, *supra* note 39, at 99–100, 102 (arguing that courts apply the formula in marginal rather than total terms).

<sup>46</sup> See SHAVELL, *supra* note 43, at 23–25 (discussing the level of activity).

<sup>47</sup> See RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL AND EMOTIONAL HARM § 3 reporters' note to cmt. j (2010). Although the comment refers to the argument that "the actor's very decision to engage in a particular activity" was negligent, it appears that § 3 may apply to a decision to increase the level of the activity. *Id.* § 3 cmt. j; *cf.* Gilles, *supra* note 1, at 844 ("[S]omeone applying the Hand Formula approach can treat 'refraining from the activity' as the relevant precaution to be evaluated.").

<sup>48</sup> Hetcher, *supra* note 35, at 864–65; *see also* Keating, *supra* note 32, at 360–61 ("[T]he Hand Formula itself does not seem to dominate American negligence practice . . .").

<sup>49</sup> See Ronald J. Allen & Ross M. Rosenberg, *Legal Phenomena, Knowledge, and Theory: A Cautionary Tale of Hedgehogs and Foxes*, 77 CHI.-KENT L. REV. 683, 699, 700–01, 708–16, 719 (2002) (showing that the Hand formula is rarely used in courts); Richard W. Wright, *Hand, Posner, and the Myth of the "Hand Formula,"* 4 THEORETICAL INQUIRIES L. 145, 151–52 (2003) [hereinafter Wright, *The Myth*] ("[T]he Hand formula continues to be rarely mentioned in all but two United States jurisdictions: the state of Louisiana and . . . the U.S. Court of Appeals for the Seventh Circuit."); Wright, *Justice and Reasonable Care*, *supra* note 21, at 145 (noting that the Hand formula "is not actually employed by the courts to determine whether specific conduct was negligent"); Wright, *Negligence in the Courts*, *supra* note 21, at 427, 449–54 (surveying court decisions referencing the Hand formula and finding that such references are very rare).

accepted and employed this formula,<sup>50</sup> many courts, nevertheless, seem to bypass it in assessing negligence.<sup>51</sup> Furthermore, this formula has not become a standard jury instruction in negligence cases,<sup>52</sup> and there is no reason to believe that it has otherwise markedly influenced jury decisions over the years.<sup>53</sup> Again, Louisiana is the exception that proves the rule.<sup>54</sup> In summary, the Hand formula does not truly capture the meaning of negligence in American tort law.<sup>55</sup>

Consequently, § 3 fails to restate prevailing law. Instead, it promotes a certain normative commitment that does not truly dominate American tort doctrine.<sup>56</sup> In doing so, it diverges from the traditional position of the American Law Institute, whereby “*Restatements* are predominantly positive and only incrementally normative.”<sup>57</sup> The shift from a positive to a normative mission is not necessarily illegitimate, although it should be acknowledged explicitly. Tort theorists who believe that a Restatement—like a model code—may propose legal norms, rather than simply describe existing norms, should consider

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<sup>50</sup> See Allen & Rosenberg, *supra* note 49, at 717–19 (discussing the treatment of negligence by Louisiana courts); Wright, *Negligence in the Courts*, *supra* note 21, at 454–55 (same).

<sup>51</sup> Allen and Rosenberg contend that the Louisiana courts have not only cited the Hand formula but also attempted to apply it. Allen & Rosenberg, *supra* note 49, at 709, 717–19. Wright, on the other hand, contends that the references to the Hand formula in Louisiana cases were mere window-dressing, and that the cases were actually decided on other grounds. Wright, *Negligence in the Courts*, *supra* note 21, at 457–64.

<sup>52</sup> See Allen & Rosenberg, *supra* note 49, at 699–700, 705–06 (showing that the Hand formula is not echoed in jury instructions); Stephen G. Gilles, *The Invisible Hand Formula*, 80 V.A. L. REV. 1015, 1016–17 (1994) (noting that courts do not instruct juries to weigh the costs and benefits of additional care); Wright, *Negligence in the Courts*, *supra* note 21, at 427, 432 (stating that jury instructions typically “make no mention of risk-utility or cost-benefit balancing”).

<sup>53</sup> See Hetcher, *supra* note 35, at 868, 875–79, 891 (noting that juries are not typically instructed on the Hand formula and that the ordinary “reasonable person” instruction does not advocate the economic approach implied by the Hand formula); Zipursky, *supra* note 2, at 2003 (stating that there is no evidence suggesting that jurors understand the reasonable person standard to incorporate the Hand formula).

<sup>54</sup> See Patrick J. Kelley & Laurel A. Wendt, *What Judges Tell Juries About Negligence: A Review of Pattern Jury Instructions*, 77 CHI.-KENT L. REV. 587, 600, 619–20 (2002) (noting that Louisiana allows for an optional cost-benefit analysis while still defining negligence in terms of care).

<sup>55</sup> See Hetcher, *supra* note 35, at 869 (concluding that the Hand formula is not prevalent in case law); Zipursky, *supra* note 2, at 2002, 2005, 2013 (arguing that the Hand formula does not adequately capture the standard of American negligence law).

<sup>56</sup> See Hetcher, *supra* note 35, at 865, 868 (concluding that § 3 does not truly reflect American law).

<sup>57</sup> Gilles, *supra* note 1, at 814. Indeed, this is not the first divergence. Section 402A of the RESTATEMENT (SECOND) OF TORTS (1977) “did not ‘restate’ the dominant common law rule in America circa 1964; rather it reflected the judgment of the [American Law Institute] as to what the law should be.” Stephen D. Sugarman, *A Restatement of Torts*, 44 STAN. L. REV. 1163, 1163 (1992).

whether § 3 suggests the most defensible standard. Theorists who believe that a prescriptive Restatement is an unacceptable oxymoron should be troubled not only by the apparent inaccuracy of § 3, but also by its undeserved impact on legal thought and practice. Many judges, practitioners, and even law professors, unacquainted with the academic discussion on this matter, may be led to believe that § 3 is truly a restatement of the law. Under this descriptive guise, § 3 may pave the way for a gradual endorsement of the economic definition of reasonableness, and thereby curtail the development of tort law and theory in other directions.

## 2. Criticism

The economic definition of reasonableness may be criticized on two levels. An *external* critique challenges the very attempt to base legal rules on economic criteria, and as such expresses methodological and ideological opposition to the economic approach as a whole. An *internal* critique, on the other hand, uses economic tools to evaluate economic-oriented formulations. From an economic perspective, negligence law imposes liability on actual injurers for harms caused by their inefficient conduct in order to make potential injurers internalize the social costs of such conduct *ex ante*. This renders any decision to engage in inefficient conduct not worthwhile.<sup>58</sup> Internal criticism purports to demonstrate that an economic definition of negligence might not always realize that goal.<sup>59</sup>

This Subpart discusses the practical problems that might frustrate the attempt to provide efficient incentives to potential injurers by applying an economic definition of reasonableness, sophisticated as that definition may be. These problems may be classified in accordance with the role of the person whose conduct, decision, or evaluation impairs the effectiveness of this definition: the factfinder, the

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<sup>58</sup> See, e.g., Robert D. Cooter, *Three Effects of Social Norms on Law: Expression, Deterrence, and Internalization*, 79 OR. L. REV. 1, 15–17 (2000) (discussing the economic rationale for tort liability); John C.P. Goldberg, *Twentieth-Century Tort Theory*, 91 GEO. L.J. 513, 545–46 (2003) (describing and differentiating between two branches of economic deterrence theory); Keith N. Hylton, *Punitive Damages and the Economic Theory of Penalties*, 87 GEO. L.J. 421, 421 (1998) (describing various economic theories of deterrence in tort liability); A. Mitchell Polinsky & Steven Shavell, *Punitive Damages: An Economic Analysis*, 111 HARV. L. REV. 870, 873 (1998) (discussing the economic incentives the tort system provides to deter socially injurious acts).

<sup>59</sup> Arguably, tort liability might not be necessary to achieve deterrence, given the existence of other incentives such as personal morality, risk to oneself, market incentives, and regulation. See Gary T. Schwartz, *Reality and the Economic Analysis of Tort Law: Does Tort Law Really Deter?*, 42 UCLA L. REV. 377, 382 (1994). We do not discuss this argument because it challenges the need for tort liability as a deterrent, whereas we focus on its efficacy.

injurer, or the victim. We start with the difficulties faced by factfinders in implementing the economic definition. Next, we discuss potential injurers' inability to identify the standard of care and the impact of counterincentives on their conduct. Lastly, we elaborate on the problem of underenforcement by actual victims.

a. Factfinders

Factfinders' ability to distinguish reasonable from unreasonable conduct is a precondition for the effectiveness of the economic definition. If factfinders flounder, the incentives created by tort liability are distorted, and efficient conduct is not guaranteed. To determine the level of care required of a potential injurer, factfinders must identify the costs and benefits associated with each level of care and evaluate their magnitudes and probabilities where relevant. If some data are missing or inaccurate, it is impossible to ascertain the optimal level of care, and hence impossible to determine whether the defendant's conduct was negligent.

Unfortunately, a factfinder's awareness of relevant interests, and a fortiori of their value, is limited due to the bilateral nature of tort actions. The parties to an action can provide evidence pertaining primarily to their own interests, whereas consistent application of the economic approach also requires information about other parties. A decision premised exclusively on the interests of the parties to the particular action may not require a considerable amount of information, but neither is it consonant with the idea of maximizing aggregate welfare. To the extent that other interests should be incorporated into the analysis, the information problem becomes more acute, and the application of the formula becomes less practical.

Even where factfinders are aware of the relevant interests and endeavor to evaluate them, quantification is a formidable if not impossible task.<sup>60</sup> For example, one cannot truly ascertain the scope of foreseeable harm, especially where nonpecuniary losses are involved. Similarly, one cannot determine the cost of precaution where it does not entail the purchase of certain services or goods, but rather the prevention of momentary absentmindedness, forgetfulness, or confusion.<sup>61</sup> And the cost of precaution cannot be determined when an intangible social interest, such as the public's sense of security, is

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<sup>60</sup> See Keating, *supra* note 32, at 340 (discussing the difficulties involved in quantifying inherently subjective, non-market-based evaluations).

<sup>61</sup> See IZHAK ENGLARD, *THE PHILOSOPHY OF TORT LAW* 38–39 (1993) [hereinafter ENGLARD, *THE PHILOSOPHY OF TORT LAW*] (discussing the impossibility of determining the cost of preventing actions that stem from human frailties); Izhak Englard, *The System Builders: A Critical Appraisal of Modern American Tort Theory*, 9 J. LEGAL STUD. 27, 54

infringed.<sup>62</sup> It is also impossible to assess the probability of particular harms, with or without adopting certain precautions, in the absence of statistical data relating to the relevant activity. As the definition of reasonableness becomes more sophisticated and comprehensive due to the commitment to welfare maximization (for example, marginal values are considered instead of total values, the level of activity is taken into account, and so forth), its application requires more information, the lack of which hinders any effort to resolve the question of reasonableness.

Thus, in the vast majority of negligence cases, factfinders lack sufficient data to make a decision. They consider only some of the relevant parameters, and even their evaluation of these is frequently intuitive.<sup>63</sup> In certain cases, an intuitive assessment would not be problematic. For example, if one person can prevent a serious and certain bodily injury to another at negligible cost, failure to adopt the appropriate measures will plainly constitute negligence under the economic definition. The problem arises in borderline cases, in which an intuitive assessment may result in finding a non-negligent defendant to be negligent (false positive) or in finding a negligent defendant to be non-negligent (false negative).<sup>64</sup> Cognitive biases—especially the hindsight bias<sup>65</sup>—combined with some level of animosity toward cer-

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(1980) [hereinafter England, *The System Builders*] (“[T]he adoption of efficient means to ensure against human inattention is a very expensive enterprise.”).

<sup>62</sup> For example, if the police are sued for harm caused by a police car speeding in pursuit of an escaping suspect, the cost of the untaken precaution—such as careful driving—must include the increased risk of not catching the fugitive. See *Smith v. West Point*, 475 So. 2d 816, 818 (Miss. 1985) (noting that when determining negligence, the risk posed by a fleeing suspect should be considered).

<sup>63</sup> Judge Hand predicted this in *Moisan v. Loftus*, 178 F.2d 148, 149 (2d Cir. 1949), and *Conway v. O'Brien*, 111 F.2d 611, 612 (2d Cir. 1940). Even Judge Posner admitted that the analytical value of the Hand formula is much higher than its practical value, and that its application must be based on intuitive rather than objective evaluations. See *McCarthy v. Pheasant Run, Inc.*, 826 F.2d 1554, 1557 (7th Cir. 1987) (noting that juries use intuition to decide reasonableness, and that, as long as their result is reasonable, judges should not substitute their determinations); *U.S. Fidelity & Guaranty Co. v. Plovidba*, 683 F.2d 1022, 1026 (7th Cir. 1982) (noting that “the Hand formula does not yield mathematically precise results in practice,” but instead “is a valuable aid to clear thinking”).

<sup>64</sup> See Kenneth S. Abraham, *The Trouble with Negligence*, 54 VAND. L. REV. 1187, 1202–03 (2001) (contending that, where no preexisting norm governs the determination of negligence, “different finders of fact are much more likely to arrive at different conclusions as to the reasonableness of the same conduct”); Goldberg, *supra* note 58, at 551–52 (explaining that, since “the information is often partial and indeterminate” and is examined “by jurors and judges with no particular expertise,” there are “many erroneous determinations of fault”).

<sup>65</sup> In hindsight, people consistently overestimate the ability to anticipate events that actually occurred. Baruch Fischhoff, *For Those Condemned To Study the Past: Heuristics and Biases in Hindsight*, in *JUDGMENT UNDER UNCERTAINTY: HEURISTICS AND BIASES* 335, 341 (Daniel Kahneman et al. eds., 1982). The relevance of the hindsight bias in tort

tain types of defendants<sup>66</sup> and the natural empathy for miserable victims<sup>67</sup> would lead primarily to false-positive conclusions.

A false-positive determination of negligence might not be economically detrimental if three conditions are met: (1) Every choice is between two levels of care, taking precautions that eliminate a particular risk, and not taking precautions at all; (2) a finding of negligence has no extralegal consequences; and (3) all people are risk-neutral. Under such circumstances, setting the standard of care above the economically optimal level is equivalent to a strict liability regime, in which the injurer's private cost-benefit calculation is identical to the social calculation.<sup>68</sup> Injurers thus have an incentive to choose the optimal level of care even if they fear that only choosing a supraoptimal level will exempt them from liability. For example, if a risk-neutral person can eliminate a \$50 risk by taking precautions for \$100, this person will not take these precautions even if courts are known to impose liability for reasonable conduct, because the cost (\$100) outweighs the ensuing benefit (saving \$50). In those cases, a false-positive determination of negligence does not distort the incentive. But reality is usually more complex.

First, most human choices are not between risk and no-risk. Imposing liability on injurers who chose the optimal level of care may result in inefficient conduct where even supraoptimal care does not fully eliminate the risk, or where there are more than two possible levels of care. Under a "tilted" negligence regime, potential injurers may still internalize the externalities of their activities if they choose the optimal level of care, but will not internalize these externalities if they conform to the supraoptimal standard required by factfinders. For example, assume that a doctor needs to choose between two treatments. The expected harm from using the first is \$800, whereas the expected harm from using the second is \$400. The second method costs \$600 more than the first. Since  $\$800 < \$400 + \$600$ , the first

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law is that knowledge of the harm caused and of the actual causal chain makes the factfinder exaggerate the anticipated risk created by the defendant's conduct. See Christine Jolls et al., *A Behavioral Approach to Law and Economics*, 50 STAN. L. REV. 1471, 1524–25 (1998) (discussing the relevance of the hindsight bias in tort law); Jeffrey J. Rachlinski, *A Positive Psychological Theory of Judging in Hindsight*, 65 U. CHI. L. REV. 571, 591 (1998) (stating that people judge conduct based on the ex post consequences).

<sup>66</sup> See Mark F. Grady, *Why Are People Negligent? Technology, Nondurable Precautions, and the Medical Malpractice Explosion*, 82 NW. U. L. REV. 293, 319–20 (1988) (discussing the impact of "the rising hostility to big business" on tort law and practice).

<sup>67</sup> See, e.g., Francis A. Bohlen, *Mixed Questions of Law and Fact*, 72 U. PA. L. REV. 111, 118 (1924) ("A court might emphasize to the jury *ad nauseam* the social value of the act, but the jury would only see one man injured by another.").

<sup>68</sup> See SHAVELL, *supra* note 43, at 8 (explaining that, under strict liability, total accident costs become injurers' total costs).

method is economically preferable. However, imposing liability for failing to choose the safer method would lead doctors to choose the second. From a doctor's perspective, the cost of the first method would be \$800, while the cost of the second would be \$600 (using it exempts the doctor from liability). Of course, the fear of overdeterrence exists even if false-positive determinations of negligence are uncertain.<sup>69</sup>

Second, finding a person negligent may have extralegal effects. For example, the rational doctor considers not only the cost of treatment versus expected liability, but also the prospect of reputational harm in the event of being found negligent.<sup>70</sup> As long as the negligence rule is applied correctly, the extralegal sanction will not result in overdeterrence, because a non-negligent party bears neither tort liability nor any related extralegal sanction.<sup>71</sup> But if potential injurers fear false-positive determinations of negligence, the prospect of extralegal sanction aggravates the problem of overdeterrence.<sup>72</sup> A professional who knows she may be found negligent despite taking the optimal level of care may choose a supraoptimal level of care—even if the marginal personal benefit of doing so in terms of reducing expected liability is lower than the marginal cost—in order to avoid the stigma associated with malpractice. For instance, if a lawyer can prevent a \$100 loss to a client by taking precautions for \$150, failure to take these precautions is economically reasonable. Even if lawyers are consistently found negligent for not taking these precautions, they will not take them because the private cost (\$150) exceeds the benefit

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<sup>69</sup> This analysis applies to false-positive determinations of negligence due to errors in identifying the optimal level of care or in determining the injurer's actual level of care. See SHAVELL, *supra* note 43, at 80–81, 93–99 (discussing the possible effects of uncertainty surrounding the finding of negligence).

<sup>70</sup> See Clarence Morris, *Custom and Negligence*, 42 COLUM. L. REV. 1147, 1165 (1942) (“[A] doctor who loses a malpractice case stands to lose more than the amount of the judgment—he may also lose his professional reputation and his livelihood.”).

<sup>71</sup> See Robert Cooter & Ariel Porat, *Should Courts Deduct Nonlegal Sanctions from Damages?*, 30 J. LEGAL STUD. 401, 419–20 (2001) (discussing the need to deduct the burden of nonlegal sanctions from damages in order to avoid overdetering injurers when nonlegal sanctions yield benefits to third parties); *id.* at 403, 405–08 (discussing the external benefits of nonlegal sanctions); *id.* at 412–13 (proposing that deducting the burden of nonlegal sanctions from compensatory damages would improve the victim's incentive to take precautionary measures); *id.* at 415–16 (discussing the difficulty of valuating the benefits of nonlegal sanctions and proposing solutions). However, Cooter and Porat discuss nonlegal sanctions in general, not just the reputational harm consequent upon a finding of negligence. Furthermore, their recommendation is relevant mainly under a strict liability regime because imposing liability that exceeds the harm caused under a perfectly applied negligence rule would not lead to overdeterrence. *Id.*

<sup>72</sup> *Id.* at 419–20; see also SHAVELL, *supra* note 43, at 108, 115 (explaining that if injurers are exposed to liability in excess of harm caused by their activity, they may take supraoptimal care due to the likelihood of false-positive determinations of negligence).

(saving \$100). Yet if finding a lawyer negligent causes a reputational harm of \$60, she will adopt the inefficient precaution because its cost (\$150) is lower than the expected benefit (saving \$100 + \$60).

Finally, even if every decision entailed a choice between creating risk and eliminating it at a certain cost, imposing liability on non-negligent actors might lead potential injurers to take more than optimal care due to risk aversion. This would happen mainly in cases in which the risk is low and the potential harm is considerable. A risk-averse person who can eliminate such a risk by taking a relatively low-cost measure, spreading the cost among her customers, might be tempted to do so even when the cost outweighs the reduction in expected harm, if she believes that factfinders might otherwise find her negligent.

## b. Potential Injurers

### *i. Inability To Identify Negligence*

Imposing liability for negligent conduct in accordance with the economic definition promotes efficiency only if potential injurers can identify and avoid negligent conduct. In order to do so they must be able to successfully assess the expected change in aggregate welfare for each possible course of action. However, potential injurers are frequently incapable of assessing these changes due to a lack of information about the externalities of their actions.<sup>73</sup> To the extent that the economic definition becomes more sophisticated and more comprehensive, the task of identifying and evaluating the relevant costs and benefits requires more information and becomes less practical. Insufficient information may result in undesirable conduct. For example, assume D considers whether to take precautions that cost \$100 and prevent a \$50 loss to P. Failure to take precautions will not constitute negligence, so D will not be held liable for not taking them. Now assume that taking the same precautions will also prevent a loss of \$60 to C, and that D is unaware of that. In this case, D will erroneously believe that failing to take precautions is reasonable, so the negligence rule will not induce D to take them.

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<sup>73</sup> See, e.g., John G. Fleming, *Is There a Future for Tort?*, 44 LA. L. REV. 1193, 1200 (1984) (noting that the hypothetical "calculating 'economic man' with full information on the balance of costs . . . will rarely be found in the 'real world.');" Howard A. Latin, *Problem-Solving Behavior and Theories of Tort Liability*, 73 CALIF. L. REV. 677, 682-88 (1985) (discussing the problem of inadequate knowledge as well as "information overload"); Stephen D. Sugarman, *Doing Away with Tort Law*, 73 CALIF. L. REV. 555, 565-69 (1985) (problematizing the general model of deterrence by describing concerns with ignorance and incompetence in evaluating potential risks).

Furthermore, as a result of cognitive biases, the subjective evaluation of the probability of a certain event is not necessarily consistent with the objective probability. Biases may lead to overvaluation or undervaluation of probabilities.<sup>74</sup> For instance, people tend to assess the probability of any event based on the availability of its previous occurrences in their memories even though availability does not necessarily indicate the actual probability of the event.<sup>75</sup> The more salient the event, the more easily it is called to mind, and the higher its presumed probability.<sup>76</sup> Similarly, overconfidence in one's own abilities and overoptimism may lead to undervaluation of the probabilities of accidents.<sup>77</sup> It is difficult to assess the effect of each cognitive bias on

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<sup>74</sup> See, e.g., Goldberg, *supra* note 58, at 559 (arguing that pervasive under- or overestimation can seriously affect the law's ability to incentivize efficient behavior through Learned Hand's negligence formula and that this effect must be taken into account when designing legal rules); Schwartz, *supra* note 59, at 383 (arguing that individuals might not act rationally due to cognitive and psychological limitations).

<sup>75</sup> See Paul Slovic et al., *Facts Versus Fears: Understanding Perceived Risk*, in JUDGMENT UNDER UNCERTAINTY 463, 464–65 (Daniel Kahneman et al. eds., 1982) (noting that when people make assessments about the probability or frequency of a given event, they often make inferences based on their ability to imagine or recall similar events; consequently, events that more easily come to mind are judged to be more probable); Shelley E. Taylor, *The Availability Bias in Social Perception and Interaction*, in JUDGMENT UNDER UNCERTAINTY 190, 191 (Daniel Kahneman et al. eds., 1982) (arguing that, in the absence of important and relevant information, people use the availability heuristic to make social as well as non-social judgments); Amos Tversky & Daniel Kahneman, *Availability: A Heuristic for Judging Frequency and Probability*, in JUDGMENT UNDER UNCERTAINTY 163, 163–65 (Daniel Kahneman et al. eds., 1982) [hereinafter Tversky & Kahneman, *Availability*] (explaining the availability heuristic and providing examples of probability assessments made through this cognitive process); Amos Tversky & Daniel Kahneman, *Judgment Under Uncertainty: Heuristics and Biases*, in JUDGMENT UNDER UNCERTAINTY 3, 11 (Daniel Kahneman et al. eds., 1982) [hereinafter Tversky & Kahneman, *Judgment Under Uncertainty*] (noting that people often assess the frequency or probability of an event by reference to the availability in their memories of like occurrences); Cass R. Sunstein, *Behavioral Analysis of Law*, 64 U. CHI. L. REV. 1175, 1188 (1997) (arguing that, in the aggregate, the availability heuristic can produce systematic error, because people tend to overestimate the seriousness of risks that are easy to imagine or recall).

<sup>76</sup> See Slovic et al., *supra* note 75, at 465–68 (noting that a person's assessment of an event's probability is often affected by her ability to imagine or recall like occurrences, which in turn is affected by factors unrelated to the actual probability of the event's occurrence); Tversky & Kahneman, *Availability*, *supra* note 75, at 176 (arguing that reliance on the availability heuristic can lead to error since people's ability to recall or imagine an event is affected by factors other than actual probability); Tversky & Kahneman, *Judgment Under Uncertainty*, *supra* note 75, at 11 (discussing how the ease of bringing an event to mind affects one's assessment of its probability).

<sup>77</sup> See Jolls et al., *supra* note 65, at 1524–25 (discussing overconfidence and overoptimism); Christine Jolls, *Behavioral Economic Analysis of Redistributive Legal Rules*, 51 VAND. L. REV. 1653, 1659 (1998) (“[P]eople are often unrealistically optimistic about the probability that bad things will happen to them.”); Jeffrey J. Rachlinski, *The “New” Law and Psychology: A Reply to Critics, Skeptics, and Cautious Supporters*, 85 CORNELL L. REV. 739, 747 (2000) (discussing overoptimism in liquidated damages clauses and suggesting that courts should be cautious in enforcing such clauses since enforcement would

the subjective evaluation of relevant risks, and even more difficult to assess the combined effects of these biases.<sup>78</sup>

Where there is a discrepancy between the objective probability of a certain cost or benefit and the subjective evaluation of this probability by reason of a cognitive bias or insufficient information, the economic definition cannot ensure efficient behavior. A potential injurer may regard a real risk as negligible and remote, or vice versa. So the subjective cost-benefit analysis will differ from that dictated by objective data. For example, if there is a 0.001 probability that D's conduct will cause a million-dollar loss to P, and D can eliminate the danger for \$800, failure to take the necessary precautions constitutes negligence since  $PL > B$  ( $\$1000 > \$800$ ). As long as D is aware of the risk and does not suffer from cognitive biases, he will adopt the necessary precautions. But if D believes, due to information problems or cognitive biases, that expected liability is only \$500, adopting precautions will not appear to be worthwhile ( $\$500 < \$800$ ). Therefore, the Hand formula, even if perfectly applied, will not induce efficient conduct.

Finally, all of the above assumes that potential injurers actually attempt to estimate and balance the costs and benefits of their conduct. In fact, most human decisions are made instantaneously and subconsciously. Even if the required information were available and inexpensive, we would be unable to obtain and process it with the speed and accuracy necessary to make the correct decision at the right moment.<sup>79</sup> As long as people lack unlimited knowledge and phenomenal computational capacity, their prompt subconscious decisions will not express a rational choice. So an efficiency-oriented negligence rule will not affect these decisions, at least not directly.<sup>80</sup> The Third

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be unfair to the contracting party that was a victim of overoptimism); Sunstein, *supra* note 75, at 1182–84 (describing the problem of overoptimism as it relates to the regulatory state).

<sup>78</sup> The literature on cognitive biases concerns ordinary people. Large institutions may be more capable of acquiring and assessing information. Schwartz, *supra* note 59, at 387.

<sup>79</sup> See England, *The System Builders*, *supra* note 61, at 43 (contending that the majority of accidents result from human frailty and thus lack the controllability necessary for general deterrence to be effective); Goldberg, *supra* note 58, at 558 (“[A] good deal of tortious conduct . . . comes in the form of momentary lapses that may not be deterrable.”); Latin, *supra* note 73, at 685 n.46 (criticizing the behavioral assumption that individuals act as unconscious utility maximizers); Schwartz, *supra* note 59, at 383, 385–86 (arguing that the deterrent effect on inadvertent negligence is imperfect but possible through the creation of habits and control mechanisms); Zipursky, *supra* note 2, at 2017–18 (stating that in many cases, such as in the case of inadvertent negligence, the Hand formula is inapplicable). The probability of momentary lapses may be reduced, but such lapses are impossible to eliminate.

<sup>80</sup> Again, sophisticated injurers may have the necessary information and computational ability to assess the costs and benefits of certain activities, but these are the exception.

Restatement takes this into consideration in comment d to § 3, stating that when negligence consists mainly in the actor's inattentive failure to advert to the risk, "explicit consideration of the primary factors is often awkward, and the actor's conduct can best be evaluated by directly applying the standard of the reasonably careful person."<sup>81</sup>

ii. *Counterincentives*

Assume, now, that tort law provides efficient incentives to potential injurers. At first glance, liability insurance should not interfere with these incentives. In an ideal world, the premium (I) is determined in accordance with the insured's expected liability (risk-responsive premium) and cannot be lower than the magnitude of the risk ( $PL \leq I$ ). So if a potential injurer can eliminate the risk at a cost lower than the magnitude of the risk ( $B < PL$ ), that person would rather eliminate the risk than pay the premium ( $B < PL = I$ ).<sup>82</sup> If the potential injurer cannot eliminate the risk at a cost lower than the magnitude of the risk ( $B > PL$ ), failure to eliminate the risk will not be deemed negligent, and that person will not need liability insurance. However, in reality, people often purchase liability insurance. This may happen where potential injurers fear false-positive determinations of negligence by factfinders, where they cannot determine the optimal level of care for various reasons, or where they wish to protect themselves from the costs of defending against unmeritorious claims.<sup>83</sup> More importantly, people may purchase liability insurance where the premium is lower than prevention costs due to imperfect classification of risk-creating activities.<sup>84</sup>

From the moment of buying insurance, investment in preventive measures is no longer worthwhile for the insured, even if the cost thereof is small. Consequently, liability insurance reduces the incentive for efficient conduct that tort liability provides.<sup>85</sup> While insurance

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<sup>81</sup> RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL AND EMOTIONAL HARM § 3 cmt. d (2010); see also *id.* § 3 cmt. k (observing that in cases of inattentiveness, "analyzing the factors highlighted in this Section may be artificial").

<sup>82</sup> See Gary T. Schwartz, *The Ethics and the Economics of Tort Liability Insurance*, 75 CORNELL L. REV. 313, 337–38 (1990) (explaining why "perfectly responsive insurance poses no problem").

<sup>83</sup> *Id.* at 344–46 (explaining why people may have an incentive to purchase liability insurance when the probability of negligence liability is unknown).

<sup>84</sup> See ENGLAND, *THE PHILOSOPHY OF TORT LAW*, *supra* note 61, at 44 (discussing inadequate classification by insurers).

<sup>85</sup> See *id.* at 41 (discussing the effect of liability insurance on potential injurers' incentives); England, *The System Builders*, *supra* note 61, at 46 (arguing that liability insurance threatens deterrence incentives because costs are externalized); Fleming, *supra* note 73, at 1197 (arguing that modern insurance challenges the classic deterrence rationale of tort law because insurance "socializes" the loss[,] . . . thereby eliminating even the symbolic tokens of individual blame"); Schwartz, *supra* note 59, at 382–83 (noting that liability insurance erodes the deterrent effect of tort liability on the insured); Sugarman, *supra* note 73, at

reduces the loss of welfare due to risk aversion, it may increase the likelihood of accidents. Insurance companies can preserve part of the incentive through deductibles, insurance caps, bonus-malus systems, exemption clauses, and the like.<sup>86</sup> But insurers suffer from serious information deficiencies and are unable to effectively supervise the insureds' conduct, so it is doubtful that they can restore the lost deterrent effect.<sup>87</sup> Theoretically, the problem of moral hazard could be solved by restricting the use of insurance, as in holding negligence liability insurance contracts unenforceable on public policy grounds.<sup>88</sup> Of course, this method would reintroduce the problem of loss of welfare due to risk aversion.

An additional problem hindering the effectiveness of the incentives generated by tort liability is judgment-proof defendants. If the potential injurer is unable to fully compensate for harm that his or her negligent conduct may cause, the potential injurer will not internalize the social cost of that conduct. From her perspective, the expected expense may be lower than the expected social harm, so the incentive for choosing the optimal level of care is impaired.<sup>89</sup> To illustrate, assume a probability of 0.02 that D's conduct will cause a \$100,000 loss to P. D can reduce the probability to 0.01 by taking certain precautions for \$800. The cost of care (\$800) is lower than the ensuing

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574–81 (discussing why measures available to insurers, such as raising insurance prices, imposing threats of nonrenewals, and imposing safety requirements, inadequately deter risk-creating activities).

<sup>86</sup> See, e.g., Schwartz, *supra* note 59, at 385 (describing the deductibles, caps, and rating systems often included in insurance arrangements that consequently require tortfeasors to internalize some of the costs associated with negligence).

<sup>87</sup> Sometimes the insurer can promote efficient conduct through guidance and consultation. Schwartz, *supra* note 82, at 356. But the safety loss associated with moral hazard may outweigh the benefits of such guidance. *Id.* at 357.

<sup>88</sup> See, e.g., *Breeden v. Frankford Marine, Accident & Plate Glass Ins. Co.*, 119 S.W. 576, 607–08 (Mo. 1909) (Lamm, J., dissenting in part) (“The validity of insurance . . . taken to indemnify a carrier or employer of men against the lapses, slips, inadvertences, misadventures, and negligences incident to their business . . . was assailed as against public policy . . .”); SHAVELL, *supra* note 43, at 214–15 (observing the opposition to liability insurance in Western jurisdictions in the nineteenth century); Alice Erh-Soon Tay, *The Foundation of Tort Liability in a Socialist Legal System: Fault Versus Social Insurance in Soviet Law*, 19 U. TORONTO L.J. 1, 15 (1969) (showing that liability insurance was not allowed in the Soviet Union because of its possible effect on deterrence and “moral functions of civil liability”).

<sup>89</sup> See Kyle D. Logue, *Solving the Judgment-Proof Problem*, 72 TEX. L. REV. 1375, 1375 (1994) (noting that the existence of judgment-proof defendants undermines the deterrence objective of tort law); S. Shavell, *The Judgment Proof Problem*, 6 INT'L REV. L. & ECON. 45, 45 (1986) (concluding that liability does not provide judgment-proof defendants with adequate incentives to minimize risk); Comment, *The Case of the Disappearing Defendant: An Economic Analysis*, 132 U. PA. L. REV. 145, 157–59 (1983) [hereinafter *The Case of the Disappearing Defendant*] (determining that the injurer will take an inefficiently low level of care if the likelihood of insolvency exceeds a critical level).

reduction in expected harm (\$1000), so failure to take precautions is negligent. Assume further that the value of D's assets is \$30,000 and that D is risk neutral. Even if liability for negligent conduct was certain, the negligence rule would not provide an adequate incentive. D's expected sanction in case of failing to take precautions would be  $0.02 \times \$30,000 = \$600$ , whereas the cost of care is \$800.

Law and economics scholars propose several solutions to the judgment-proof defendant problem. First, if someone with sufficient financial resources has control over the potential injurer's conduct, he or she may be held vicariously liable for the negligent conduct of the latter<sup>90</sup> or directly liable for negligently failing to prevent it. However, in many cases no such person or organization exists, and even if one does, the degree of control is rarely sufficient to ensure the efficient conduct of the judgment-proof actor. Second, people who do not have the financial ability to cover losses that may result from certain activities might be prohibited from engaging in those activities. But setting a minimum-asset requirement may curtail desirable activities. For example, an activity that yields a benefit of \$11,000 and creates a one-percent risk of a million-dollar loss is efficient. But very few will engage in it if they must have a million dollars in order to do so.<sup>91</sup> Third, those engaged in particular activities may be obliged to purchase liability insurance.<sup>92</sup> However, as discussed above, insurance may hamper incentives for efficient conduct.<sup>93</sup> In addition, an insurer may cap coverage, and the insured's assets may be insufficient to cover liability in excess of the cap; hence the judgment-proof defendant problem may remain.<sup>94</sup> Fourth, it is possible to impose criminal liability on those not induced to take optimal care by civil liability.<sup>95</sup> Still, criminal law does not generally deal with negligent conduct, nor is it supposed to. It seems inconceivable that while criminal law

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<sup>90</sup> See SHAVELL, *supra* note 43, at 168–69 (discussing vicarious liability as a solution to the judgment-proof defendant problem).

<sup>91</sup> See *id.* at 169 (discussing minimum-asset requirements as a solution to the judgment-proof defendant problem).

<sup>92</sup> See *id.* (discussing liability insurance as a solution to the judgment-proof defendant problem).

<sup>93</sup> See *supra* notes 83–88 and accompanying text.

<sup>94</sup> See Logue, *supra* note 89, at 1376, 1384 (explaining that insurance does not solve the judgment-proof defendant problem because most liability insurance policies contain policy limits).

<sup>95</sup> See SHAVELL, *supra* note 43, at 170 (noting the possibility that criminal liability may encourage potential injurers to take optimal care).

experts lament the excessive expansion of criminal liability,<sup>96</sup> anyone would suggest expanding it further.

### c. Victims

The economic definition can serve its goal only if each negligent injurer is liable for the harm caused by her negligent conduct, to the extent that such harm reflects true social cost. Only if the expected liability in cases of negligence is equivalent to or greater than the expected harm will the potential injurer internalize the expected harm and act efficiently. However, for practical reasons, many negligent injurers are let off scot-free.<sup>97</sup> First, some victims are unaware that their losses resulted from negligence.<sup>98</sup> Second, even when a victim suspects that the harm was caused by negligent conduct, she does not always have sufficient evidence to prove negligence and a causal connection between the negligence and the harm.<sup>99</sup> In that case, the victim may decide not to file suit at all, or to file suit knowing that her chances of success are minimal. Either way, the potential injurer's expected liability is lower than the expected harm. Third, the victim may not bring an action if the expected private cost of doing so outweighs the expected benefit. Tort litigation is time-consuming, wearisome, and costly,<sup>100</sup> its outcome is uncertain, and collecting an award may prove difficult, especially if the defendant's resources are limited.<sup>101</sup> Fourth, the victim may refrain from suing if there is a familial, social, professional, or other connection between herself and the injurer. Conceivably, when there is a close relationship between the

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<sup>96</sup> See, e.g., Carolyn B. Ramsey, *Homicide on Holiday: Prosecutorial Discretion, Popular Culture, and the Boundaries of the Criminal Law*, 54 HASTINGS L.J. 1641, 1642 & n.9 (2003) (discussing objections to the statutory expansion of criminal law).

<sup>97</sup> Arguably, this criticism cannot be leveled at the economic definition of negligence because defining the standard of care and enforcing it are two distinct issues. We disagree. If one is truly committed to welfare maximization, one must ensure that potential injurers internalize the costs of negligent conduct. See SHAVELL, *supra* note 43, at 127–28 (“[T]hat expected liability equals expected losses is the assumption on which the arguments about optimality of parties’ behavior under liability rules has been based.”). Otherwise, defining negligence in terms of efficiency is pointless.

<sup>98</sup> See Gary T. Schwartz, *Empiricism and Tort Law*, 2002 U. ILL. L. REV. 1067, 1071 (explaining that some victims may fail to bring a claim because they were not aware that their losses resulted from negligence).

<sup>99</sup> See *id.* (noting the need to prove deviation from the standard of care).

<sup>100</sup> See *id.* (discussing the cost of mounting a plausible malpractice claim).

<sup>101</sup> If the victim's harm is denoted H, the private administrative cost is C, the probability of liability is P<sub>1</sub>, and the probability of collecting an award is P<sub>2</sub>, then assuming that the scope of liability equals the extent of harm caused, the victim will sue only if C < P<sub>1</sub>P<sub>2</sub>H. See *The Case of the Disappearing Defendant*, *supra* note 89, at 145 (observing that if the injurer is insolvent, or if it is too costly for the victim to bring an action against the injurer, then from the perspective of the victim, the injurer has “disappeared”).

potential injurer and the potential victim, the former will take the latter's expected harm into account anyway, but this cannot be guaranteed. Fifth, even if the victim wishes to bring an action, skilled lawyers might be reluctant to accept the case unless the loss is conspicuously severe.<sup>102</sup> All this results in a systematic underenforcement problem.

The conventional law and economics solution for the underenforcement problem is to determine the extent of a negligent injurer's liability by multiplying the actual level of losses by the reciprocal of the probability of suit.<sup>103</sup> This solution presents at least four difficulties. First, there is no doctrinal basis for awarding extracompensatory damages in an ordinary case of negligence. Punitive damages are reserved for outrageous conduct.<sup>104</sup> Second, the Supreme Court made it clear that even where punitive damages may be awarded, a single-digit ratio between noncompensatory and compensatory damages is more likely to accord with due process than awards with higher ratios,<sup>105</sup> thereby setting a constitutional barrier to accurate implementation of the economic solution. Third, the proposed solution compels a court to assess the probability of escaping suit, which may be impractical.<sup>106</sup> An incorrect assessment may result in overdeterrence or underdeterrence, depending on the nature of the

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<sup>102</sup> See Schwartz, *supra* note 98, at 1071 (explaining lawyers' reluctance to take such cases); Frank A. Sloan & Chee R. Hsieh, *Injury, Liability, and the Decision To File a Medical Malpractice Claim*, 29 L. & SOC'Y REV. 413, 414 (1995) (observing that underenforcement may arise because lawyers reject claims that are unlikely to be profitable).

<sup>103</sup> For example, if the probability of a successful suit in a case of negligence is 0.1, the extent of the injurer's liability should be determined by multiplying the actual loss by 10. See LANDES & POSNER, *supra* note 39, at 160–65 (explaining the underenforcement problem and deriving the damages multiplier); SHAVELL, *supra* note 43, at 148 (same); Robert D. Cooter, *Punitive Damages for Deterrence: When and How Much?*, 40 ALA. L. REV. 1143, 1148 (1989) (describing the need for the "rule of the reciprocal" to compensate for underenforcement and provide adequate deterrence); Polinsky & Shavell, *supra* note 58, at 873–74 (detailing how the underenforcement problem generates a need for the reciprocal multiplier in order to achieve appropriate deterrence); Cass R. Sunstein et al., *Assessing Punitive Damages (with Notes on Cognition and Valuation in Law)*, 107 YALE L.J. 2071, 2075, 2082–83 (1998) (noting that punitive damages should be awarded in cases where the probability of suit is low due to inability to accurately police wrongdoing).

<sup>104</sup> RESTATEMENT (SECOND) OF TORTS § 908 (1977) ("Punitive damages may be awarded for conduct that is outrageous, because of the defendant's evil motive or his reckless indifference to the rights of others."); see also Benjamin C. Zipursky, *Rights, Wrongs, and Recourse in the Law of Torts*, 51 VAND. L. REV. 1, 95 (1998) (reiterating the same view).

<sup>105</sup> *State Farm Mut. Auto. Ins. Co. v. Campbell*, 538 U.S. 408, 425 (2003). Greater ratios may be consistent with the Due Process Clause "where 'a particularly egregious act has resulted in only a small amount of economic damages.'" *Id.* (quoting *BMW of N. Am., Inc. v. Gore*, 517 U.S. 559, 582 (1996)).

<sup>106</sup> See SHAVELL, *supra* note 43, at 148 (expressing skepticism that courts will be able to estimate the exact level of probability of escaping suit).

error.<sup>107</sup> Fourth, even where it is possible to assess the probability of escaping suit, awarding extracompensatory damages may aggravate the problem of judgment-proof defendants.

A related underenforcement problem is that of settling claims for less than their true value. The overwhelming majority of tort disputes are settled out of court.<sup>108</sup> If the settlement amount is equal to the harm caused, no problem should arise. However, most victims presumably agree to unsatisfactory settlements in order to avoid protracted and expensive litigation with an uncertain outcome. So even if any victim of negligent conduct made a claim, expected liability for negligence would still be lower than the expected harm. A possible solution to this problem resembles the one outlined above, namely increasing the extent of liability with regard to the probability of settling a claim and the average ratio between a settled amount and an actual harm. However, this solution also lacks any doctrinal basis and may be very difficult to implement.

## B. *Equal Freedom*

### 1. *Definition*

An alternative normative perception of reasonableness focuses not on aggregate welfare but on the protection of certain rights that every person enjoys and that everyone is obliged to respect. The clash between the two perceptions is time worn, and we do not presume to offer any new insights on how to resolve it. In fact, it is impossible to decide between mutually exclusive paradigms by exposing each to criticism deriving from the other. Supporters of one approach cannot accept any criticism that derives from a normative commitment that they fundamentally oppose.

The principal objection raised by deontologists against the economic approach is similar to the traditional criticism of utilitarianism: The economic approach views every person as a means for promoting social welfare, not as a bearer of intrinsic worth that ought to be respected and protected.<sup>109</sup> Critics claim that in view of the intrinsic value of every person, certain acts should be prohibited regardless of their contribution to aggregate welfare. The classic examples are tor-

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<sup>107</sup> The probability of underenforcement may be a source of controversy even in relatively simple cases. See Steven M. Shavell, *On the Proper Magnitude of Punitive Damages: Mathias v. Accor Economy Lodging, Inc.*, 120 HARV. L. REV. 1223, 1223–27 (2007) (discussing Judge Posner's analysis of the magnitude of punitive damages in an opinion affirming a punitive damages award that was 37.2 times the compensatory damages award).

<sup>108</sup> SHAVELL, *supra* note 43, at 263 n.1 (citing several empirical studies finding that between 90 and 99 percent of tort claims are settled out of court).

<sup>109</sup> See Weinrib, *supra* note 30, at 40 (explaining this objection to utilitarianism).

turing a person for public entertainment, where the aggregate pleasure outweighs the individual's suffering;<sup>110</sup> killing a healthy person in order to use his or her organs to save five dying patients;<sup>111</sup> convicting and punishing an innocent person to prevent harm to other innocent people;<sup>112</sup> and oppressing a minority to indulge and placate the majority. An aggregative consequentialist approach could justify these acts.

The operation of an economic definition of negligence is similar, though not so extreme: Any person may expose others to significant risks as long as aggregate welfare increases.<sup>113</sup> In fact, choosing to act in a way that creates a serious risk may be regarded as reasonable even if it benefits only the person who has made that choice, provided that the benefit is larger than the expected cost. This problem may be solved in part by using the Pareto criterion of efficiency, whereby one allocation of resources is more efficient than another only if a shift from the latter to the former will make at least one party better off and make no one worse off.<sup>114</sup> However, this criterion was ultimately rejected by economic analysts of law on the grounds of impracticality, in favor of the Kaldor-Hicks criterion.<sup>115</sup> The adherence to the Hand formula expresses this choice.

<sup>110</sup> See, e.g., URSULA K. LE GUIN, *The Ones Who Walk Away from Omelas*, in *THE WIND'S TWELVE QUARTERS* 275, 275–84 (1975) (involving a science fiction story in which all members of a society are completely happy as long as a single child remains suffering).

<sup>111</sup> See GILBERT HARMAN, *THE NATURE OF MORALITY: AN INTRODUCTION TO ETHICS* 3–10 (1977) (discussing a hypothetical situation in which a doctor must choose between killing one healthy person and not saving five dying patients); see also Lon L. Fuller, *The Case of the Speluncean Explorers*, 62 *HARV. L. REV.* 616, 616–18 (1949) (discussing an imaginary case in which five explorers were trapped in a cave, and four survived by killing and eating the fifth).

<sup>112</sup> See Simons, *supra* note 20, at 909 (using this example); Thaddeus Metz, Book Review, 110 *PHIL. REV.* 434, 435 (2001) (explaining that this hypothetical constitutes “one of the most permanent objections to consequentialism”).

<sup>113</sup> See Heidi M. Hurd, *Is It Wrong To Do Right When Others Do Wrong?: A Critique of American Tort Law*, 7 *LEGAL THEORY* 307, 307 (2001) (“[T]he Hand Formula appears to allow rights violations in the name of utility or wealth maximization . . . .”); Perry, *supra* note 20, at 897 (“[A]n understanding of negligence that permitted one person unilaterally to impose substantial risks on others simply because the costs of prevention were too high is very unlikely to be acceptable from a non-consequentialist perspective.”); Wright, *Justice and Reasonable Care*, *supra* note 21, at 162 (observing that the Third Restatement allows a person to impose very serious risks on others as long as the benefits the person expects to obtain from the conduct outweigh the risks).

<sup>114</sup> See Mark A. Geistfeld, *Reconciling Cost-Benefit Analysis with the Principle that Safety Matters More than Money*, 76 *N.Y.U. L. REV.* 114, 136 (2001) (describing 1930s economists’ preference for Pareto optimization over straight utility comparisons).

<sup>115</sup> See *id.* (noting the paucity of Pareto-satisfying policies as the reason for the adoption of the Kaldor-Hicks criterion, under which a choice would be efficient if those who gain could compensate the losers and still improve utility).

The Kantian definition of reasonableness is the strongest rival of the economic definition. Kant's basic axiom is that "freedom (independence from being constrained by another's choice), insofar as it can coexist with the freedom of every other in accordance with a universal law, is the only original right belonging to every person by virtue of his or her humanity."<sup>116</sup> This fundamental right gives every person an absolute inner worth. Each person, as a free human being, is exalted above any price. Hence one should not be treated merely as a means to the ends of others or even to one's own ends, but as an end in oneself. Every person possesses "dignity (an absolute inner worth) by which he [or she] exacts respect from all other rational beings in the world."<sup>117</sup> This means that we cannot impose liability on a person only to deter others from similar conduct.<sup>118</sup> Consequently, the Kantian view completely undermines the moral basis of any attempt to achieve efficient deterrence through tort law. Similarly, the Kantian view does not allow one to impose any type of risk on another just because this will yield great benefits to oneself or to third parties.<sup>119</sup> Doing so is tantamount to using the other person as a means.

The principle of innate freedom also includes an innate right to equality, namely "independence from being bound by others to more than one can . . . bind them."<sup>120</sup> The idea of equal freedom is manifested in the Kantian principle of right, whereby a person should "act externally [so] that the free use of [that person's] choice can coexist with the freedom of everyone in accordance with a universal law."<sup>121</sup> This principle underlies an alternative definition of reasonableness. From a Kantian perspective, some level of risk is natural and inevitable in all human action; one cannot act without creating risks, so a duty not to impose risk would deprive people of the freedom to act.<sup>122</sup> Still, granting immunity from liability to injurers, regardless of the magnitude of the risks they have created, constitutes unacceptable dis-

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<sup>116</sup> IMMANUEL KANT, *THE METAPHYSICS OF MORALS* § 237 (Mary Gregor ed. trans., Cambridge Univ. Press 1996) (1797).

<sup>117</sup> *Id.* at 186.

<sup>118</sup> *Id.* at 105.

<sup>119</sup> See Zipursky, *supra* note 2, at 2030 (collecting rights theorists' arguments).

<sup>120</sup> KANT, *supra* note 116, § 238.

<sup>121</sup> *Id.* §§ 230–32; see also ERNEST J. WEINRIB, *THE IDEA OF PRIVATE LAW* 94–98, 104, 111 (1995) (discussing the Kantian principle of right); Jeffrie G. Murphy, *Does Kant Have a Theory of Punishment?*, 87 COLUM. L. REV. 509, 519 (1987) (discussing Kant's view of the right of liberty as justifying state coercion).

<sup>122</sup> A person cannot wish for a universal duty not to impose any risk because this would deprive that person of the freedom to act. Keating, *supra* note 32, at 351; Wright, *Justice and Reasonable Care*, *supra* note 21, at 166; Zipursky, *supra* note 2, at 2031.

regard for the freedom of potential victims.<sup>123</sup> Without some freedom from risks, humans lack the fundamental conditions to pursue their personal goals.<sup>124</sup> Thus, reasonable care ought to be the level of care that reconciles the conflicting liberties of injurers and victims: freedom of action (freedom to act and thereby impose risks) on the one hand, and security (freedom from accidental harm) on the other.<sup>125</sup>

Defining unreasonableness as the creation of a real, foreseeable risk—as opposed to merely a far-fetched risk—constitutes the golden mean between the two extremes, and expresses the Kantian equality between the parties.<sup>126</sup> The reasonableness of a risk is determined by its effect on human freedom, and the relevant criterion is the magnitude of the risk created by the potential injurer, namely the potential victim's expected harm.<sup>127</sup> A far-fetched risk is the kind that every person is prepared to endure, knowing that all human activity involves such risks and that trying to eliminate them would disable action. Conversely, no one is willing to be exposed to real risks. Since protec-

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<sup>123</sup> A person cannot wish absolute immunity from liability to become universal because that would enable others to expose that person to significant risks.

<sup>124</sup> Keating, *supra* note 32, at 323 (“[W]ithout a reasonable amount of freedom from accidental injury and death, we lack favorable conditions for working our will upon the world.”).

<sup>125</sup> *Id.* at 322, 349, 384; Zipursky, *supra* note 2, at 2031.

<sup>126</sup> The Kantian definition is not completely alien to the common law of torts. It was applied by English courts in cases like *Bolton v. Stone*, [1951] A.C. 850 (H.L.) 867–68 (appeal taken from Eng.), and *Koufos v. C. Czarnikow Ltd.*, [1969] 1 A.C. 350 (H.L.) 385–86 (appeal taken from Eng.). See also DIETER GIESEN, INTERNATIONAL MEDICAL MALPRACTICE LAW 183–84 (1988) (“[A] wrongdoer will be liable for damage of any type which should have been foreseen . . . as being something of which there was a real risk . . . unless the risk was so small . . . [that the reasonable] person would feel fully justified in neglecting it or brushing it aside as inadequate or as ‘fantastic or far-fetched.’”).

However, only in the last two decades has the Kantian definition been associated with equal freedom theories. See WEINRIB, *supra* note 121, at 147–52 (associating *Bolton v. Stone* with the Kantian principle of right); Arthur Ripstein, *Philosophy of Tort Law*, in THE OXFORD HANDBOOK OF JURISPRUDENCE AND PHILOSOPHY OF LAW 656, 663 (Jules Coleman & Scott Shapiro eds., 2001) (describing the “boundary between appropriate and inappropriate risks [as] set by a system of norms of equal freedom”); Richard W. Wright, *The Standards of Care in Negligence Law*, in PHILOSOPHICAL FOUNDATIONS OF TORT LAW 249, 255–63 (David G. Owen ed., 1995) (arguing that Kantian-Aristotelean theory is based on equal freedom rather than any utilitarian efficiency conception). Note, however, that in his more recent work, Wright proposes a different understanding of reasonableness from an equal freedom perspective. Wright, *The Myth*, *supra* note 49, at 273–74 (endeavoring “to identify and elaborate the criteria of reasonableness that actually are applied . . . by the courts in various types of situations, [and] to explain how these tests implement the basic principles of justice”). We intend to discuss this view and other concrete definitions of reasonableness in a future article.

<sup>127</sup> Ernest J. Weinrib, *Correlativity, Personality, and the Emerging Consensus on Corrective Justice*, 2 THEORETICAL INQUIRIES L. 107, 116 (2001).

tion of all humans must be equal, every person must waive the possibility of exposing others to risks of that magnitude.

This perception differs from that proposed by Keating in several ways. First, while Keating builds on Fletcher's idea of nonreciprocal risks within the actual bilateral interaction, the Kantian definition extracts the permitted level of risk from a hypothetical universal consensus.<sup>128</sup> Symmetrically imposed risks can be real. When they are, they are unreasonable under the Kantian theory, but reasonable under Keating's theory, assuming Keating's commitment to Fletcher's idea of reciprocity within a particular interaction.<sup>129</sup> The Fletcher-Keating test enables A to expose B to risks that no rational person would agree to bear, merely on the grounds that B exposed A to similar risks. This is tantamount to saying that A is entitled to violate B's right simply because B violated A's.

Second, while Keating's theory distinguishes different types of interests, the Kantian test does not make such a priori distinctions. Keating argues that tort law understandably extends its protection only to physical injuries to natural persons and their property.<sup>130</sup> In his view, physical injury, which threatens death and irreversible harm to the capacities necessary to the pursuit of a human life, is the most grievous general form of accidental interference with personal freedom. Personal property, in turn, is "an essential social condition for the efficacious pursuit of a conception of the good."<sup>131</sup> Purely economic interests, by contrast, "are not so intimately tied to the development and exercise of the distinctive capacities of human agency."<sup>132</sup> He reiterates that "differences in kind between the goods obviously burdened by precaution (income and wealth) and those ordinarily burdened by risk impositions (physical integrity and property) reflect differences in impact on the liberties at stake in accident law."<sup>133</sup>

This attitude is problematic. Even if the superiority of life and bodily integrity is undisputed,<sup>134</sup> it is hard to justify a distinction between property damage and purely economic loss in terms of

<sup>128</sup> Keating, *supra* note 32, at 317.

<sup>129</sup> See Hurd, *supra* note 35, at 260–61 (discussing Keating).

<sup>130</sup> Keating, *supra* note 32, at 343–44.

<sup>131</sup> *Id.* at 344.

<sup>132</sup> *Id.* at 344–45.

<sup>133</sup> *Id.* at 354.

<sup>134</sup> See, e.g., Geistfeld, *supra* note 114, at 124–25 (observing that "physical injury is more disruptive to the pursuit of one's life plan than is the loss of money," and that "[i]f no amount of money is equivalent to a human life, then safety interests apparently dominate ordinary economic interests").

interest hierarchy. After all, property is a manifestation of wealth.<sup>135</sup> Indeed, tangible objects may have an additional, incalculable, sentimental value.<sup>136</sup> But this sentimental value does not characterize any type of property protected by tort law, and even where it exists it is rarely significant. Furthermore, even if one personal interest is generally inferior to another, a significant impairment to the first may be more burdensome than a slight injury to the second.<sup>137</sup> For example, many people might prefer a slight and transient physical injury to losing their life savings. In Keating's own terms, a devastating economic loss affects a person's freedom more than does a minor bodily injury. Therefore, his view that a victim of the latter should be compensated while a victim of the former should not seems inconsistent.

To determine the magnitude of the foreseeable risk created by the defendant, factfinders need to consider the foreseeable severity of the harm and its foreseeable probability. In cases where a real risk could have been significantly reduced at a relatively low cost, and in cases where a far-fetched risk could have been eliminated at a relatively high cost, the Hand formula and the Kantian test yield the same conclusion. On the other hand, the two tests may produce different results in two sets of cases.

In the first set, the risk to the plaintiff was real but the social cost of its prevention—whether by taking a certain precaution or refraining from the risk-creating activity—was higher than the magnitude of the plaintiff's risk. In this set of cases, the Kantian approach, as opposed to the economic approach, would support imposition of liability. Nonetheless, if the defendant's conduct created additional risks to other people, applying the economic definition might also lead to imposition of liability. This is because the economic definition compares the cost of care with the aggregate level of foreseeable risk rather than the expected harm to a particular plaintiff.

In the second set of cases, the risk to the plaintiff was negligible but the social cost of its prevention was lower than the magnitude of the risk. In this set, opting for an economic definition of negligence

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<sup>135</sup> See Christopher Harvey, *Economic Losses and Negligence: The Search for a Just Solution*, 50 CAN. B. REV. 580, 584 n.22 (1972) (explaining that property is a form of wealth).

<sup>136</sup> See Oliver W. Holmes, *The Path of the Law*, 10 HARV. L. REV. 457, 477 (1897) ("A thing which you have enjoyed and used as your own for a long time . . . takes root in your being and cannot be torn away without your resenting the act and trying to defend yourself . . .").

<sup>137</sup> See Roger B. Godwin, Note, *Negligent Interference with Economic Expectancy: The Case for Recovery*, 16 STAN. L. REV. 664, 692 (1964) (acknowledging that a substantial injury to a less important interest may be more significant to the defendant than a slight injury to a more important interest).

would lead to a *prima facie* finding of negligence, whereas adopting the Kantian definition would lead to the opposite conclusion. But in the final analysis, the economic approach might also support exclusion of liability, because the administrative costs of tort liability would be higher than the benefit in terms of deterrence.<sup>138</sup> The two approaches might diverge if the defendant's conduct exposed many people to the same risk. In that case, a Kantian analysis—which focuses on the particular risk imposed on the particular plaintiff—would still lead to denial of liability, whereas the economic approach—which considers the aggregate level of foreseeable risk—may lead to the imposition of liability.

The main advantage of the Kantian definition over the economic competitor is that it treats every person as an end rather than a means.<sup>139</sup> It bestows uncompromising, unconditional, and equal protection on a certain sphere of freedom, and prevents individual freedom from becoming hostage to public welfare.<sup>140</sup> Accordingly, it deems impermissible the use of human beings as mere means to one's own ends by exposing them to significant foreseeable risks, regardless of the ensuing benefit.<sup>141</sup>

In addition, the Kantian definition seems more coherent. It extracts from the unique features of the particular interaction the justification for both the defendant's duty and the plaintiff's correlative right, whereas the economic approach extracts from the particulars of the interaction only the justification for the injurer's liability, not the justification for the victim's entitlement.<sup>142</sup> In principle, imposing a financial sanction on the injurer serves the goal of deterrence even if the money is not transferred to the victim but instead to a third party or the state. The economic approach may justify the victim's entitlement based on the need to enforce the efficiency-oriented standard of care that the injurer violated. However, as long as the justification for the injurer's liability (deterrence) differs from the justification for the

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<sup>138</sup> Thus, a *de minimis* defense may be justified in both Kantian and economic terms.

<sup>139</sup> See Kenneth W. Simons, *Rethinking Mental States*, 72 B.U. L. REV. 463, 513 (1992) (“[M]any students are initially outraged by the fact that businesses deliberately weigh life and limb against the cost of preventing such injuries. . . . Perhaps their reaction derives from a feeling that people have been used as a means . . .”).

<sup>140</sup> See Hurd, *supra* note 113, at 310 (discussing this advantage and contrasting the Kantian approach with utilitarianism).

<sup>141</sup> See Wright, *supra* note 126, at 256 (“[G]iven the Kantian requirement of treating others as ends rather than merely as means, it is impermissible to use someone as a mere means to your ends by exposing him . . . to significant foreseeable unaccepted risks, regardless of how greatly the benefit to you might outweigh the risk to him.”).

<sup>142</sup> See WEINRIB, *supra* note 121, at 47 (noting that the objective of deterring defendants justifies the economic approach but that this approach is not concerned with the fact that the damages collected are paid out to plaintiffs).

plaintiff's entitlement (incentive for enforcement) neither can justify the juridical link between the two parties.<sup>143</sup> After all, each of the two economic objectives can be obtained by an independent mechanism that is more efficient than tort law.<sup>144</sup>

Finally, the Kantian definition is better suited to the bilateral nature of tort actions. In contrast to the Hand formula, it focuses solely on the interaction between the two parties to the action, and not on the effects of that interaction on society at large.<sup>145</sup> The Kantian definition's compatibility with the nature of the action makes it more practical. This point is discussed further below.

## 2. Criticism

### a. Uncertainty

A possible criticism of the Kantian definition is that it fails to offer a clear criterion for distinguishing between reasonable and unreasonable conduct.<sup>146</sup> If the relevant facts are known to factfinders, the economic definition produces an immediate and unequivocal answer to the question of reasonableness, while the Kantian criterion may not. This is so because the economic definition is based on a comparison between two values, whereas the Kantian definition requires that a single value that lies on an infinite continuum, the magnitude of risk, be converted into a binary normative conclusion, real or far-fetched. The required transformation is based to some extent on subjective intuition. Since ordinary people may have difficulty complying with the Kantian standard and factfinders may have difficulty implementing it, its application may ultimately be arbitrary.

Proponents of the Kantian approach would almost certainly reply that implementing a justified rule may occasionally involve difficulties and leave a measure of uncertainty in the law, but this does not mean that a morally untenable rule should be adopted instead. Using a Kantian criterion, even at the price of uncertainty in borderline cases,

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<sup>143</sup> See *id.* ("The plaintiff's receipt of the damage award reflects a separate group of incentives (such as the need to induce enforcement of the norm and to prevent prospective victims from preempting the precautions incumbent upon actors) that do not entail taking the money from the actual defendant.").

<sup>144</sup> See Goldberg, *supra* note 58, at 554 ("The goal of efficient deterrence might . . . be equally or better served by a system of regulatory fines.").

<sup>145</sup> See Zipursky, *supra* note 2, at 2030 (noting that under the Kantian view, "[t]he fact that great benefits for others, or for oneself, might flow from taking substantial risks to a person or small group of persons cannot justify the taking of that risk").

<sup>146</sup> See Robert L. Rabin, *Law for Law's Sake*, 105 *YALE L.J.* 2261, 2276 (1996) (book review) (criticizing Weinrib's conceptualization of the Kantian model on the grounds that it "leaves the test of reasonable care indeterminate").

is preferable to adopting a criterion that treats persons as means rather than ends, and that ignores the absolute equality of all persons.

The Kantian must understand, though, that a significant uncertainty in law may impede freedom of action. Hence it should be emphasized that the Kantian definition leaves only a limited gray area, and that its implementation outside that area is not particularly difficult. This means that uncertainty and fear of arbitrary decisions are also limited. Moreover, to prevent arbitrariness and reduce uncertainty even in the gray area, factfinders can resolve borderline cases by cautious analogy to previous cases,<sup>147</sup> or with the help of external indicators of socially acceptable behavior,<sup>148</sup> such as custom,<sup>149</sup> statutory provisions,<sup>150</sup> or jury adjudication.<sup>151</sup> Clearly these external indicators cannot be conclusive, because they may reflect a plurality of moral convictions rather than a monistic perception of reasonableness.<sup>152</sup> Moreover, a true Kantian would probably “reject the claim that moral obligations vary according to conventional beliefs or community practices.”<sup>153</sup> Nonetheless, these indicators may help determine the level of generally tolerable risk.

Finally, if we are concerned about implementation difficulties, we must remember that the economic approach entails even greater practical problems. Often, an approximate extrapolation of the parameters required to implement the Hand formula does not suffice, whereas a more precise assessment is exceedingly difficult, if not altogether impossible. To the extent that the economic definition becomes more sophisticated and comprehensive due to the commitment to welfare maximization, implementation requires more information. For example, factfinders need to assess the impact of the defendant’s conduct on third parties not present in the particular action. The informa-

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<sup>147</sup> Cf. WEINRIB, *supra* note 121, at 167 (emphasizing the importance of comparison with analogous fact situations in determining whether a particular risk was foreseeable).

<sup>148</sup> See Keating, *supra* note 32, at 379 (“Negligence law responds to the indeterminacy of the general canons of reasonableness through subordinate doctrines that specify the concrete duties of care.”).

<sup>149</sup> See *id.* at 380 (“Customary conduct is normal conduct and what is normal is plainly relevant to . . . the question of what *should be* normal.”).

<sup>150</sup> Hurd, *supra* note 35, at 267 (“Inasmuch as criminal prohibitions appear to reflect maxims of a deontological order, the *per se* negligence doctrine suggests that (*per se*) negligence constitutes a catch-all concept for violations of more specific agent-relative obligations.”); see Keating, *supra* note 32, at 381 (noting that statutory provisions are relevant in determining the standard of care).

<sup>151</sup> See Keating, *supra* note 32, at 380–81 (“Jury adjudication is intended to bring the moral sense of the community to bear on controversial disputes.”).

<sup>152</sup> Cf. Abraham, *supra* note 64, at 1195 (suggesting that since people hold varying viewpoints about how others should behave, consistent agreement about what constitutes reasonable conduct cannot be expected).

<sup>153</sup> Hurd, *supra* note 35, at 269.

tion that may be obtained about such parties is naturally limited and indefinite.<sup>154</sup> Certainly, the Kantian definition may occasionally be hard to apply, but it requires evaluation of only two factors: the probability of harm to a particular plaintiff and the foreseeable scope of that harm. Information about both factors is readily available to factfinders, and the evaluation of these factors need not be accurate anyway.

#### b. Excuses

A series of possible criticisms of the Kantian definition concerns situations in which exposing one person to a real foreseeable risk is intended to protect the interests of other persons. One such criticism focuses on cases where D injures P to prevent him from injuring C, or D herself. For instance, a policewoman, D, shoots and injures a robber, P, who threatens to kill an innocent teller, C. D exposes P to a real foreseeable risk. Is she negligent? *Prima facie*, one could argue that the Kantian focus on the bilateral interaction inevitably mandates a determination of wrongfulness, although D's wrong to P was intended to protect a very important interest of C. Labeling D a wrongdoer and subjecting her to liability would be inconsistent with the common law.<sup>155</sup> More importantly, imposing liability would violate fundamental moral intuitions: D should not be penalized for trying to protect an important value from unjustified assault, and P should not be allowed to benefit from his wrong.<sup>156</sup> This line of argument misconceives the Kantian principle of right. Kant clearly recognized self-defense and defense of third persons as justification defenses. Using force to repel an attack is not wrongful, because resorting to force to prevent a violation of rights cannot, in itself, be regarded as a violation of another's right.<sup>157</sup>

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<sup>154</sup> The economic definition requires evaluation of the *overall* risk created by the defendant's conduct. The Kantian definition requires evaluation of the *particular* risk created by the particular defendant to the particular plaintiff. Weinrib, *supra* note 30, at 40–41. Moreover, the economic definition requires an assessment of marginal costs and benefits of various levels of care and activity, rather than the particular risk created by the defendant.

<sup>155</sup> See, e.g., RESTATEMENT (SECOND) OF TORTS §§ 63, 65, 76–77, 79, 86–87, 100 (1965) (discussing the use of force to prevent violation of certain rights); ANTHONY M. DUGDALE ET AL., CLERK & LINDSELL ON TORTS 222–23, 227–29, 1931–32 (19th ed. 2006) (discussing the availability of self-help in miscellaneous tort defenses).

<sup>156</sup> See generally Ronen Perry, *The Role of Retributive Justice in the Common Law of Torts: A Descriptive Theory*, 73 TENN. L. REV. 177, 206–23 (2006) (discussing the history and application of the maxim *ex turpi causa non oritur actio* (or the illegality defense) in tort law).

<sup>157</sup> See Hurd, *supra* note 35, at 250–51 (observing that, from a deontological perspective, an innocent person may be justified in killing a gang of wrongful aggressors to preserve her

A similar yet more powerful criticism of the Kantian definition pertains to situations of necessity. If D exposed P to a real foreseeable risk to save C or herself from an even greater risk not created by P, then according to the Kantian definition, D acted unreasonably toward P. Seemingly, D should indemnify P for his harm. This conclusion does not change even if D was under a duty to save C,<sup>158</sup> because from a deontological perspective, discharging a duty to one person does not justify violating a duty to another.<sup>159</sup> Arguably, this conclusion is inconsistent with the common law, which recognizes the defense of necessity.<sup>160</sup> It also seems repugnant to basic moral intuitions: How can a person who makes a levelheaded attempt to save a valuable interest be deemed negligent?<sup>161</sup>

There are at least two possible answers to this question. The first is that the necessity defense does not comply with Kantian principles,<sup>162</sup> and, therefore, should not be recognized at all. This is exactly what differentiates deontological from consequentialist moral theories. For example, from a deontological perspective, “if the norms of morality prohibit the act of killing an innocent person, then an actor may not kill an innocent person even if so doing would prevent twenty innocent people from being killed.”<sup>163</sup> Any criticism of the result is based on a rejection of one of the fundamental components of deontological morality, namely the idea that agent-relative obligations categorically prohibit agents from justifying their violation by reference to some good consequence.<sup>164</sup>

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own life because she has a fundamental right to bodily integrity and, hence, a fundamental right to protect herself from others who wrongfully imperil her); see also Khalid Ghanayim, *Excused Necessity in Western Legal Philosophy*, 19 CAN. J.L. & JUR. 1, 18–19 (2006) (discussing the Kantian view of self-defense).

<sup>158</sup> Porat has given this example in his criticism of Weinrib. Ariel Porat, *Questioning the Idea of Correlativity in Weinrib's Theory of Corrective Justice*, 2 THEORETICAL INQUIRIES L. 161, 169 (2001).

<sup>159</sup> See Arthur Ripstein, *In Extremis*, 2 OHIO ST. J. CRIM. L. 415, 429 (2005) (explaining that discharging a duty to one person does not justify violating a duty to another).

<sup>160</sup> See, e.g., DUGDALE ET AL., *supra* note 155, at 222–27 (discussing the defense of necessity in English law).

<sup>161</sup> See Izhak England, *Can Strict Liability Be Generalized?*, 2 OXFORD J. LEGAL STUD. 245, 253 (1982) (stating that imposing liability on a person who acted out of necessity means imposing liability for a permissible act); Porat, *supra* note 158, at 169 (arguing that third-party interest, such as speeding to take a sick passenger to the hospital, should be given weight in determining legal and moral liability).

<sup>162</sup> KANT, *supra* note 116, §§ 235–36; see also Ghanayim, *supra* note 157, at 19–20 (discussing the Kantian view of the defense of necessity).

<sup>163</sup> Hurd, *supra* note 35, at 253.

<sup>164</sup> *Id.* at 253, 254.

This may be the explanation for the well-known decision in *Vincent v. Lake Erie Transportation Co.*<sup>165</sup> In that case, a steamship owned by the defendant was moored to the plaintiffs' dock. While the ship was being unloaded, a storm arose. "If the lines holding the ship to the dock had been cast off, [it] would doubtless[ly] have drifted away." However, "the lines were kept fast, and as soon as one parted or chafed it was replaced, sometimes with a larger one." The vessel was buffeted by the wind and the waves with such force that it was repeatedly thrown against the dock, resulting in damage to the dock.<sup>166</sup> The defendant was held liable for that damage. The court stated that if, without any direct intervention of "some act" by the defendant, the ship had been carried away by the wind and the property of another was thus injured, such injury would be attributed to an act of God, and no liability would ensue.<sup>167</sup> Additionally, had life or property been menaced by an object or thing belonging to the plaintiffs, and the defendant had harmed that object to prevent the danger, no liability would have been imposed.<sup>168</sup> However, in the current case the harm was not caused by an act of God or in self-defense. Those in charge of the vessel "deliberately and by their direct efforts held her in such a position that the damage to the dock resulted[ ] and . . . thus preserved the ship at the expense of the dock."<sup>169</sup> Therefore, plaintiffs were entitled to compensation.

Scholars have tried to rationalize this seemingly strict liability case.<sup>170</sup> The most straightforward explanation, however, is that the defendant's conduct was actually wrongful. The defendant "advisedly availed itself of the plaintiffs' property for the purpose of preserving its own more valuable property."<sup>171</sup> In other words, the defendant knowingly and actively created a significant risk to the plaintiffs' property. In so doing, it treated its interests as superior to those of the plaintiffs. The accrued benefit is irrelevant, because the act was wrongful.<sup>172</sup> The court clearly distinguished necessity from self-

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<sup>165</sup> 124 N.W. 221 (Minn. 1910).

<sup>166</sup> *Id.* at 221.

<sup>167</sup> *Id.* at 221–22.

<sup>168</sup> *Id.* at 222.

<sup>169</sup> *Id.*

<sup>170</sup> See, e.g., Mark A. Geistfeld, *Necessity and the Logic of Strict Liability*, 7 ISSUES IN LEGAL SCHOLARSHIP 1, 2 (2005) ("[*Vincent*] has foundational importance because it involves liability without fault: the self-help actor can reasonably use another's property and still incur liability for the property damage.").

<sup>171</sup> *Vincent*, 124 N.W. at 222.

<sup>172</sup> The court emphasized this point through the following illustration: "[Imagine] that for the better mooring of the vessel those in charge of her had appropriated a valuable cable lying upon the dock . . . [I]t would not be claimed that, because of the overwhelming necessity of the situation, the owner of the cable could not recover its value." *Id.* at 222.

defense.<sup>173</sup> While a defendant may be justified in harming the plaintiff's property if it menaces the defendant's life or property, the defendant cannot harm the plaintiff's property solely to preserve its own interests, valuable though they may be.<sup>174</sup>

A slightly different question arises where the defendant's conduct was intended to help a third party: D imposes a risk on P to save C. This altruistic act may seem more defensible than that of the self-centered ship owner in *Vincent*. But in Kantian terms, protecting C's interest cannot justify the violation of P's rights. The outcome might not be as appalling as it appears. First, if D injured P while rescuing C, then P may sue D in tort, but D can then seek reimbursement from C under the principles of unjust enrichment.<sup>175</sup> Put differently, in third-party necessity cases there are two bilateral interactions (P–D and D–C), and each should be dealt with separately. Second, the rescuer often can request the potential victim's consent to put his or her interest at risk for the purpose of saving the third party's more valuable interest. Presumably, in many cases of necessity the potential victim will give consent. Indeed, according to the Kantian view, he may be morally obliged to do so. Kant believed that a rational person would discharge this moral obligation for fear of compromising his own interests where he himself may need help from others.<sup>176</sup> In turn, the victim's consent would negate the wrongfulness of the injurer's act.

The second possible response to the necessity challenge is that a justificatory, and not only conceptual, distinction exists between the wrong—negligent conduct—and the defense—necessity. The wrong may be defined in Kantian terms, focusing on the particular interaction between the plaintiff and the defendant. The necessity defense may be based on utilitarian-economic foundations, focusing on the social interest. Analytically, there is no difficulty in asserting that a person commits a wrong against another by violating his right within the bilateral interaction between them, and further, that some wrongdoers should be exempted from liability because society has a strong interest in encouraging certain types of conduct (such as sensible

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<sup>173</sup> *Id.* (“This is not a case where life or property was menaced by any object or thing belonging to the plaintiff, the destruction of which became necessary to prevent the threatened disaster . . . , but is one where the defendant prudently and advisably availed itself of the plaintiffs' property for the purpose of preserving its own more valuable property . . . .”).

<sup>174</sup> *Id.* (“[T]he plaintiffs are entitled to compensation for the injury done.”).

<sup>175</sup> See RESTATEMENT (THIRD) OF RESTITUTION §§ 1–2 (2010) (providing that under certain circumstances a person who confers a benefit upon another is entitled to restitution).

<sup>176</sup> KANT, *supra* note 116, § 453.

rescue attempts). This model might be rejected by monistic Kantian theorists<sup>177</sup> but will cause no discomfort to pluralistic scholars. It conforms to the general view that the two competing approaches are legitimate and may be mixed within the framework of tort law.<sup>178</sup> In particular, this model is consistent with the more systematic (sequenced) pluralistic approach that defines wrongfulness in accordance with Kantian principles, but recognizes limited excuses on the basis of utilitarian-economic considerations.<sup>179</sup> So from a pluralistic perspective, the Kantian definition of wrongfulness need not preclude the necessity defense, and recognition of the necessity defense does not negate the wrongfulness of creating real foreseeable risks.<sup>180</sup>

### C. *Ethic of Care*

#### 1. *Definition*

Feminist theory offers a third, yet less salient, normative framework for applying the standard of care in negligence. This Article does not purport to discuss feminist criticism of judicial rhetoric. Rather, it focuses on constructive feminist propositions for defining or redefining the standard of care. Nevertheless, because the constructive propositions derive, at least in part, from a critical assessment of the judicial rhetoric, we start by introducing the primary sources of feminist unease. To begin with, the standard of care was initially determined by the “reasonable man” test,<sup>181</sup> which implied male attributes.<sup>182</sup> True, the “reasonable man” was eventually turned into

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<sup>177</sup> See, e.g., WEINRIB, *supra* note 121, at 53–55 (discussing Fletcher’s account of excuses).

<sup>178</sup> See, e.g., Rabin, *supra* note 146, at 2272 (advocating a mixed model of private law).

<sup>179</sup> See Bruce Chapman, *Pluralism in Tort and Accident Law: Toward a Reasonable Accommodation*, in PHILOSOPHY AND THE LAW OF TORTS 276, 309–10 (Gerald J. Postema ed., 2001) (proposing a sequenced pluralistic approach); Ernest J. Weinrib, *Deterrence and Corrective Justice*, 50 UCLA L. REV. 621, 630–31 (2002) (discussing Chapman’s theory of a conceptually sequenced pluralistic approach and critiquing the theory for not providing enough of a conceptual basis for sequencing).

<sup>180</sup> Pluralistic theorists may accept this model even if they give more weight to Kantian principles than to welfare maximization. That is so because the model constrains the effect of utilitarian considerations and because, even within its limited sphere of application, the Kantian view retains a symbolic value. The injurer in cases of necessity is still a wrongdoer, and the innocent victim is still a victim of wrongdoing.

<sup>181</sup> See Robyn Martin, *A Feminist View of the Reasonable Man: An Alternative Approach to Liability in Negligence for Physical Injury*, 23 ANGLO-AM. L. REV. 334, 338–41 (1994) (discussing the origins of the reasonable man test); Unikel, *supra* note 14, at 330–32 (describing how, at the time the reasonable man test developed, the law considered women to be lesser persons than men, resulting in a bias toward male norms).

<sup>182</sup> See Leslie Bender, *A Lawyer’s Primer on Feminist Theory and Tort*, 38 J. LEGAL EDUC. 3, 22 (1988) (“The original phrase ‘reasonable man’ failed in its claim to represent an abstract, universal person.”); Naomi R. Cahn, *The Looseness of Language: The*

the “reasonable person,”<sup>183</sup> but this simply motivated feminist theorists to examine whether the lexical transformation truly altered the substance of the concept. Arguably, it did not. First, Anglo-American courts used masculine metaphors to describe the standard even after the lexical change.<sup>184</sup> Second, and more importantly, the test was arguably applied in accordance with male standards, namely by the level of skill and strength and in light of the experiences of men.<sup>185</sup> Third, some feminists have contended that the historical dissociation of emotional women from reason made reasonableness inherently male-oriented.<sup>186</sup>

The literature suggests at least three feminist formulations of the standard of care. The weak formulation adapts the traditional standard of reasonable care to female traits when applied to women’s conduct or perceptions. In other words, it subjectifies the objective standard to some extent. As explained above, women’s conduct often has been judged against male standards.<sup>187</sup> Evaluating women’s con-

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*Reasonable Woman Standard in Theory and in Practice*, 77 CORNELL L. REV. 1398, 1404 (1992) (“The male bias inherent in a standard that explicitly excludes consideration of women as reasonable actors is obvious.”); Martin, *supra* note 181, at 341–42 (discussing “[t]he [b]ias of [l]anguage,” that is, how the use of male terms harmfully excludes the female experience).

<sup>183</sup> See Unikel, *supra* note 14, at 334–35 (discussing the transition to a “gender-neutral reasonable person standard” through a discussion of *Rabidue v. Osceola Refining Co.*, 805 F.2d 611 (6th Cir. 1986)).

<sup>184</sup> See, e.g., GUIDO CALABRESI, IDEALS, BELIEFS, ATTITUDES, AND THE LAW: PRIVATE LAW PERSPECTIVES ON A PUBLIC LAW PROBLEM 23, 139 n.94 (1985) (describing the American definition of the reasonably prudent person as “the man who takes the magazines at home and in the evening pushes the lawn mower in his shirt sleeves” (quoting *Hall v. Brooklands Auto Racing Club*, [1933] 1 K.B. 205 at 224 (Eng.))); Bender, *supra* note 182, at 22 (arguing that the original legal conception of reasonableness was based on the attributes of men); Lucinda M. Finley, *A Break in the Silence: Including Women’s Issues in a Torts Course*, 1 YALE J.L. & FEMINISM 41, 57–58 (1989) (noting that the original description of the reasonable person as the “reasonable man” is not merely semantic, but reflects a gendered understanding of reasonableness).

<sup>185</sup> See Finley, *supra* note 184, at 57–63 (discussing the gender bias in characterizing the reasonable person); Antonia E. Miller, Note, *Inherent (Gender) Unreasonableness of the Concept of Reasonableness in the Context of Manslaughter Committed in the Heat of Passion*, 17 WM. & MARY J. WOMEN & L. 249, 265 (2010) (arguing that reasonableness and the reasonable person are “not inherently gender-neutral”).

<sup>186</sup> See Bender, *supra* note 182, at 23–25 (“Gender distinctions have often been reinforced by dualistic attributions of reason and rationality to men, emotion and intuition (or instinct) to women.”); Leslie Bender, *An Overview of Feminist Torts Scholarship*, 78 CORNELL L. REV. 575, 579 (1993) [hereinafter Bender, *Feminist Torts Scholarship*] (describing how the legal system historically did not view women as having the capacity to reason); Cahn, *supra* note 182, at 1405 (explaining how traditional rationality includes gendered versions of emotion); Miller, *supra* note 185, at 265 (“It was commonly held that the [reasonable man] standard did not apply to female defendants, who were thought to be incapable of reasonable, rational thought.”).

<sup>187</sup> See *supra* note 185 and accompanying text.

duct or perceptions under a reasonable woman standard, based on common female characteristics, seemingly resolves this problem.<sup>188</sup> The reasonable woman test was applied in an influential dissent in *Rabidue v. Osceola Refining Co.*<sup>189</sup> to decide whether an offensive work environment existed.<sup>190</sup> But it can also be used to evaluate a defendant's conduct in a negligence case or a plaintiff's conduct where a comparative negligence defense is invoked. The main problem with this redefinition of reasonableness is that it might misjudge men with feminine perceptions and women with masculine perceptions, namely those who do not conform to their gender stereotype.<sup>191</sup> Moreover, distinguishing between reasonable women and reasonable men impairs the neutrality and objectivity of the concept of reasonableness, which is intended to set equal boundaries on all persons' conduct and to afford equal protection to all persons' interests.<sup>192</sup> A separate standard for women reinforces the anachronistic notion that men and women should not be treated equally.<sup>193</sup> Similarly, a reasonable woman standard sensitive to feminine "weaknesses" might create the impression that women are subject to a more lenient standard than "normal" persons because they are incapable of complying with normal standards.<sup>194</sup> This may perpetuate gender biases. Alternatively, women who exhibit a greater concern for safety may be held to a higher level of care, hardly a "socially attractive result."<sup>195</sup>

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<sup>188</sup> See, e.g., Cahn, *supra* note 182, at 1406–10 (discussing the use of the reasonable woman standard in sexual harassment and battered women self-defense cases); Krista J. Schoenheider, Comment, *A Theory of Tort Liability for Sexual Harassment in the Workplace*, 134 U. PA. L. REV. 1461, 1486–88 (1986) (advocating the use of the reasonable woman standard in sexual harassment cases); Note, *Sexual Harassment Claims of Abusive Work Environment Under Title VII*, 97 HARV. L. REV. 1449, 1459 (1984) (recommending the use of a reasonable victim standard to determine the offensiveness of behavior in hostile work environment cases).

<sup>189</sup> 805 F.2d 611, 626–27 (6th Cir. 1986) (Keith, J., dissenting).

<sup>190</sup> The reasonable woman standard has been applied in many sexual harassment cases, involving hostile work environments. Unikel, *supra* note 14, at 338–40.

<sup>191</sup> See Cahn, *supra* note 182, at 1416 ("A . . . problem with the reasonable woman standard is that it does not accommodate the experiences of all women."); Finley, *supra* note 184, at 63 ("One problem with incorporating female stereotypes into the male stereotyped reasonable person standard is that many people do not fit their gender stereotype."); Unikel, *supra* note 14, at 340 ("[T]he reasonable woman standard further institutionalizes existing gender hierarchy by utilizing gender-specific language.").

<sup>192</sup> Unikel, *supra* note 14, at 356–57.

<sup>193</sup> *Id.* at 361.

<sup>194</sup> See Finley, *supra* note 184, at 64 (explaining that the first formulation may create the impression that women are subnormal); Unikel, *supra* note 14, at 340, 364–65, 370 ("[T]he reasonable woman standard, by explicitly isolating women as a group requiring unique legal rules, implicitly suggests that women are fundamentally 'unlike' men and are inherently incapable of being evaluated by universally applicable standards of conduct.").

<sup>195</sup> Gary T. Schwartz, *Feminist Approaches to Tort Law*, 2 THEORETICAL INQUIRIES L. 175, 187–90 (2001).

The intermediate feminist formulation derives from the same recognition of a gender bias but endeavors to eliminate the main drawbacks of the weak version. Lucinda Finley contended that the reasonable person standard should not be applied differently to men and women, but must be generally more responsive to and inclusive of feminine perspectives, experiences, and capabilities.<sup>196</sup> Applying one flexible test to all reduces the risk of misjudging those who do not comport with gender stereotypes and alleviates the impression of leniency toward women. Arguably, this formulation does not make the reasonable person a subjective standard: “To be objective a standard does not have to be stereotyped—it can include consideration of the actual context of the event and how someone with the individual’s experiences would react without descending into pure subjectivity in the sense of asking only how the event looked to the individual.”<sup>197</sup>

The strongest feminist formulation, which also has been the most influential, is based on a radical shift in the ethical underpinning of the applicable standard. This perception derives from Carol Gilligan’s finding that women’s moral development predominantly reflects responsibility and contextuality, while men’s relies more heavily on rights and justice.<sup>198</sup> Gilligan distinguished two perspectives of morality: “A justice perspective draws attention to problems of inequality and oppression and holds up an ideal of reciprocity and equal respect. A care perspective draws attention to problems of detachment or abandonment and holds up an ideal of attention and response to need.”<sup>199</sup> This distinction corresponds to the distinction between the duty “not to treat others unfairly” and the duty “not to turn away from someone in need.”<sup>200</sup> The difference is arguably associated with gender: Women more generally endorse an ethic of care and response, whereas men more often endorse an ethic of justice, equality, and rights.<sup>201</sup>

Leslie Bender observed that “[b]oth perspectives are important in resolving tort disputes,”<sup>202</sup> and that “[a]n ethic of responsibility and

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<sup>196</sup> Finley, *supra* note 184, at 63–64; *see also* Cahn, *supra* note 182, at 1431 (describing an “androgynous” reasonable person standard, while expressing doubts about the practicality and desirability of such a standard).

<sup>197</sup> Finley, *supra* note 184, at 63–64.

<sup>198</sup> CAROL GILLIGAN, IN A DIFFERENT VOICE: PSYCHOLOGICAL THEORY AND WOMEN’S DEVELOPMENT 19 (1982).

<sup>199</sup> Carol Gilligan & Jane Attanucci, *Two Moral Orientations*, in MAPPING THE MORAL DOMAIN: A CONTRIBUTION OF WOMEN’S THINKING TO PSYCHOLOGICAL THEORY AND EDUCATION 73, 73–74 (Carol Gilligan et al. eds., 1988).

<sup>200</sup> *Id.*

<sup>201</sup> *Id.* at 73, 80–84.

<sup>202</sup> Leslie Bender, *Feminist (Re)Torts: Thoughts on the Liability Crisis, Mass Torts, Power, and Responsibilities*, 1990 DUKE L.J. 848, 903.

care, based on perceptions of human beings as interconnected and mutually dependent, would enrich our legal . . . understanding of responsibility.”<sup>203</sup> But in the end she concluded that “it is not reason, or even caution, but *care* that should be our standard.”<sup>204</sup> Thus, people should be required to act not as reasonable persons but as “responsible neighbors” or with the care and concern of “social acquaintances.”<sup>205</sup> Courts should examine not the reasonableness of defendants’ actions, but whether a defendant exhibited responsible care or concern for another’s safety, welfare, or health, akin to that demonstrated by a responsible neighbor or a social acquaintance.<sup>206</sup> In her words: “Tort law needs to be more of a system of response and caring . . . Its focus should be on interdependence and collective responsibility rather than on individuality, and on safety and help for the injured rather than on ‘reasonableness’ and economic efficiency.”<sup>207</sup> We call this “the strong feminist formulation” because it subjects all persons to a feminine standard. Bender understood that a standard based on caring was not easy to apply, and she therefore provided some general guidelines.

First, the standard does not require the level of care practiced within families. It simply requires a conscious concern for the possible consequences of our actions or inactions for another person’s safety or health.<sup>208</sup> Second, the standard incorporates the idea of interconnectedness: One must realize that the direct victim is not the only person affected by a lack of care. That person is interconnected with others and has people who care about him—parents, spouse, children, friends, colleagues, groups he participates in, and so forth.<sup>209</sup> Third, the feminist standard—unlike the Kantian standard—does not condone absolute inaction in the face of critical danger to another. The feminist regards such inaction as inhumane, because it disregards the safety of another human being and the possible repercussions of his or her injury on others. Consequently, it imposes “a duty to aid or rescue within one’s capacity under the circumstances.”<sup>210</sup> According to

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<sup>203</sup> *Id.* at 904.

<sup>204</sup> Bender, *Feminist Torts Scholarship*, *supra* note 186, at 579 (emphasis added).

<sup>205</sup> Bender, *supra* note 182, at 25, 30, 31.

<sup>206</sup> *See id.* at 31 (discussing Gilligan’s alternate premise for negligence, i.e. “measur[ing] concern and responsibility for the well-being of others and their protection from harm [such that] no one should be hurt”); Bender, *Feminist Torts Scholarship*, *supra* note 186, at 579–80 (arguing that care, rather than reason, should be the standard for negligence law).

<sup>207</sup> Bender, *supra* note 182, at 4.

<sup>208</sup> *Id.* at 32.

<sup>209</sup> *Id.* at 34–35.

<sup>210</sup> Bender, *Feminist Torts Scholarship*, *supra* note 186, at 580–81; *see also* Bender, *supra* note 182, at 33–36 (developing the same idea).

Bender, if a human being is drowning, the risk of death seems “more urgent, more imperative, more important than any possible infringement of individual autonomy by the imposition of an affirmative duty.”<sup>211</sup>

## 2. *Criticism*

The feminist definitions of reasonableness, like any other normative definition, may be challenged by those committed to competing normative ethical theories. For example, Bender’s test, in focusing on prevention of harm, and particularly in imposing a duty to rescue, may be said to undervalue individual liberty and autonomy.<sup>212</sup> As Gary Schwartz correctly observes, “[o]nly if one takes the further step and concludes that women’s ethics are right and men’s ethics wrong” does the feminist approach provide a defensible normative recommendation.<sup>213</sup> However, this Article does not side with a particular normative commitment. We are concerned primarily with the feasibility of normative definitions vis-à-vis positive definitions, not with selecting the most plausible contender in each category. Hence, we shall assume, for the purposes of this Subpart, that the fundamental ethical commitment of feminist scholars has merit, and examine whether it can provide a feasible test for reasonableness.

Some critics of feminist tort theory convincingly contend that care, concern, and cooperation are not exclusively feminine values. So if these values have been excluded, it is not because of the dominance of the masculine voice. For instance, Izhak Englard opined that “[t]he fact that caregiving, and loving kindness in general, do not make part of legal solutions can probably be explained by the ancient distinction between the spheres of legal conduct and moral perfection.”<sup>214</sup> Similarly, some argue that the ethic of care and its derivatives are humanist rather than feminist.<sup>215</sup> Moreover, care and connectedness might not be innate feminine traits, but rather the product of centuries of women’s subordination to men. If this is true, referring to these principles as feminine reaffirms the role attributed to women by

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<sup>211</sup> Bender, *supra* note 182, at 34.

<sup>212</sup> Linda C. McClain, “*Atomistic Man*” Revisited: *Liberalism, Connection, and Feminist Jurisprudence*, 65 S. CAL. L. REV. 1171, 1239–40 (1992); see also Schwartz, *supra* note 195, at 195 (“[Bender] claims . . . that caring is more important than liberty; yet her demonstration of this consists largely of simplifying statements.”).

<sup>213</sup> Schwartz, *supra* note 195, at 194–95.

<sup>214</sup> ENGLARD, *THE PHILOSOPHY OF TORT LAW*, *supra* note 61, at 118 n.8.

<sup>215</sup> Sherrine M. Walker & Christopher D. Wall, *Feminist Jurisprudence: Justice and Care*, 11 BYU J. PUB. L. 255, 277 (1997) (“[O]ne can hardly look at the ethic of care . . . and see an ethic that is purely feminine . . . . Instead of *feminine*, perhaps, the proper term should be *humanist*.”).

men.<sup>216</sup> However, these critics do not challenge the desirability of an ethic of care. They merely call for a terminological modification.

Other critics demonstrate the falsity of the feminist assumption that tort law was not responsive to women's perceptions and special traits. For instance, Margo Schlanger analyzed three categories of tort cases and found that "in rhetoric, analysis, and result, they present a world frequently, though not uniformly, friendly to women and their needs."<sup>217</sup> The cases do not evince "refusal to take account of women's experience, or . . . consistent deprecation of women's capabilities."<sup>218</sup> Gary Schwartz concluded that "gender was incorporated into the standard of care that American courts applied during tort law's traditional era,"<sup>219</sup> although he doubted that tort law was actually "friendlier" to women than to other victims.<sup>220</sup> This criticism does not challenge the importance of female perceptions. It merely states that these perceptions are already part and parcel of tort law, taking the sting out of the feminist call for reform.

The most compelling criticism, therefore, is leveled at the content of the proposed definitions or, more accurately, at the lack thereof. We focus on Bender's definition, which is allegedly revolutionary rather than marginally different. Recall that the proposed standard is based on the notions of responsible care and interconnectedness. The concept of "responsible care" has no definite content. Assuming that the feminist duty is not an absolute duty to avoid any harm, one needs to determine the point at which a person's ability to care is exhausted. An external test must be devised to identify this point. Moreover, this test must be different from those mandated by economic or Kantian theories. Otherwise, the feminist perspective changes nothing.

Bender responds that the question of defining "the limits on our personal energies and resources to aid" is unfair, because the question of line drawing arises whenever a rule of law is applied; in this instance, as in others, it should be resolved case by case.<sup>221</sup> Yet any rule needs some content—at a minimum, some general guidelines that will enable courts to adjudicate nonarbitrarily and allow potential

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<sup>216</sup> *Id.* at 281 ("[O]nly after centuries of care-giving, subordination, and socialization, has [the feminine] voice evolved to the pitch of care-giving and responsibility that is today associated with woman-ness. To listen to this feminine voice, then, would be to compound the effects of age-old male domination and reaffirm the male-induced . . . roles adopted by women.").

<sup>217</sup> Margo J. Schlanger, *Injured Women Before Common Law Courts, 1860–1930*, 21 *HARV. WOMEN'S L.J.* 79, 85 (1998).

<sup>218</sup> *Id.*

<sup>219</sup> Schwartz, *supra* note 195, at 182.

<sup>220</sup> *Id.* at 186.

<sup>221</sup> Bender, *supra* note 182, at 34 n.120.

injurers and victims to prepare for contingencies. Feminist theory has failed to provide such guidelines so far.<sup>222</sup> In fact, the concept of responsible care is so amorphous that Randy Lee saw fit to suggest that the “responsible neighbor standard” be imbued with traditional Christian values,<sup>223</sup> a proposal that Bender and other feminists might be very reluctant to endorse.

Bender endeavors to reduce the uncertainty somewhat through the concepts of the “responsible neighbor” and the “social acquaintance.” Presumably, neighbors and acquaintances care more for each other than complete strangers would, but less than close relatives.<sup>224</sup> However, this distinction does not help much. Perhaps we can assume that a neighbor cares more than a stranger, but how much more? In fact, Posner challenged even this naïve assumption: “[P]eople are what they are; most neighbors are not caring, and most accident victims are not neighbors.”<sup>225</sup> The caring neighbor “would vary not only from person to person, but from neighborhood to neighborhood and from community to community.”<sup>226</sup> Consequently, one cannot assume a certain level of care among neighbors.<sup>227</sup> Thus, adopting the feminist definition will not truly change human nature, but merely “shift negligence liability in the direction of strict liability.”<sup>228</sup> Lastly, if there are indeed gender differences in cognitive processing, there may also be gender differences in the understanding of what constitutes a responsible neighbor.<sup>229</sup>

The idea of “interconnectedness” does not reduce the uncertainty. It simply tells us to take into account the impact of one’s conduct not only on the direct victim, but also on others—as does the economic analysis of tort law. But this raises several issues. First, it is very difficult to assess the normative significance of each and every relationship. Second, if interconnectedness should affect the level of care, people with more social connections seemingly deserve more care. Put differently, some people are worth more than others, a

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<sup>222</sup> See McClain, *supra* note 212, at 1241 (“There would be obvious difficulties in articulating or applying the appropriate standard and, indeed, some relational feminists challenge the possibility of deriving *any* rules or standards about caring.”).

<sup>223</sup> Randy Lee, *A Look at God, Feminism, and Tort Law*, 75 MARQ. L. REV. 369, 395–407 (1992).

<sup>224</sup> Richard A. Posner, *Conservative Feminism*, 1989 U. CHI. LEGAL F. 191, 213–14.

<sup>225</sup> *Id.* at 214.

<sup>226</sup> McClain, *supra* note 212, at 1241.

<sup>227</sup> *Id.* at 1240.

<sup>228</sup> Posner, *supra* note 224, at 214.

<sup>229</sup> See, e.g., Cheri A. Budzynski, *Can a Feminist Approach to Corporate Social Responsibility Break Down the Barriers of the Shareholder Primacy Doctrine?*, 38 U. TOR. L. REV. 435, 459 (2006) (summarizing the feminist critique of “reasonableness” as a subjective, gender-dependent concept).

notion that runs counter to the underlying feminist perception.<sup>230</sup> Third, a coherent application of the idea of interconnectedness requires consideration not only of the responsibilities and relationships of the victim, as Bender suggests, but also of the responsibilities and relationships of the injurer and the rescuer (where one exists). Their inclusion might complicate the analysis and may even yield different outcomes. For example, it can militate against a duty to rescue.<sup>231</sup> Any rescue attempt that would place the potential rescuer in physical danger might be considered irresponsible, especially “in view of the costs of relationships and responsibilities connecting such a person with others.”<sup>232</sup> Fourth, if the interests of indirect victims are deemed normatively significant in determining the level of care, they arguably merit direct protection by the tort system. Yet it is well known that relational losses, whether economic or emotional, are rarely recoverable in common law jurisdictions.<sup>233</sup>

When Bender ultimately attempts to imbue her definition with real content, she seems to propose something akin to the economic definition. She contends that a particular conduct may be deemed negligent if the “care or concern for another’s safety or health fails to outweigh its risk of harm.”<sup>234</sup> In particular, she argues that society cannot condone “one person’s allowing a stranger to drown when saving that life could have been accomplished at no cost or minimal cost.”<sup>235</sup> Put differently, the level of care must correspond to the magnitude of the risk. Arguably, this formulation is reminiscent of the Hand formula, and since Bender explicitly objects to the economic definition,<sup>236</sup> her analysis seems self-contradictory. One may respond that Bender’s formulation is different because it only deems negligent “allowing a stranger to drown when saving that life could have been accomplished at no cost or minimal cost”<sup>237</sup>—that is, when the expected benefit considerably, not marginally, exceeds the cost. But if this is so, Bender’s definition sets a lower standard of care than the

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<sup>230</sup> See Lee, *supra* note 223, at 393–94 (explaining how the notion of interconnectedness makes some people more worthy than others).

<sup>231</sup> McClain, *supra* note 212, at 1239.

<sup>232</sup> *Id.*

<sup>233</sup> See Perry, *supra* note 156, at 193, 198–201 (discussing courts’ reluctance to impose liability for relational losses).

<sup>234</sup> Bender, *supra* note 182, at 32.

<sup>235</sup> *Id.* at 36 n.125.

<sup>236</sup> *Id.* at 31.

<sup>237</sup> *Id.* at 36 n.125.

Hand formula, although, she contends that the latter is more tolerant of risk.<sup>238</sup>

## II

### POSITIVE REASONABLENESS

#### A. *Theoretical Background*

The alternative paradigm—the positive one—defines the reasonable person in accordance with empirically observed practice. Early tort theorists “conceived of reasonableness as conformity with statistically prevalent norms of conduct.”<sup>239</sup> This early idea of the reasonable person borrowed heavily from the concept of *l’homme moyen* (the average man) developed by the nineteenth-century Belgian statistician Adolphe Quetelet.<sup>240</sup> Quetelet’s average man was a representative person formed by averaging measurable variables such as height, weight, and propensity for criminal behavior.<sup>241</sup> Quetelet’s specific statistical approach was later discredited, but the idea of an average person with whom an actual person can be compared has survived and forms the basis of the positive definition of the reasonable person.<sup>242</sup>

As Robert Rabin noted in his study of the attitude toward negligence in the late nineteenth century, this empirical conception predates the normative definitions: “Contemporaneous judicial opinions, as well as most of the early torts scholarship—including Holmes—seem to link the due care standard to community expectations of *reasonable* behavior, rather than to the economist’s perception of *rational* behavior.”<sup>243</sup> The positive definition can be found in case law in the reliance on custom to determine whether the standard of care

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<sup>238</sup> See *id.* at 32 (“[The feminist] approach will clearly lead to liability for some behaviors for which there was none before.”).

<sup>239</sup> Heidi M. Hurd & Michael S. Moore, *Negligence in the Air*, 3 THEORETICAL INQUIRIES L. 333, 377 (2002); see also Nancy S. Ehrenreich, *Pluralist Myths and Powerless Men: The Ideology of Reasonableness in Sexual Harassment Law*, 99 YALE L.J. 1177, 1180–81 (1990) (“[According to] the traditional, nineteenth-century view[,] . . . courts should rely upon prevailing social norms for their definition of reasonable behavior.”).

<sup>240</sup> For more on Quetelet’s contributions to the statistical analysis of social data, see STEPHEN M. STIGLER, *THE HISTORY OF STATISTICS: THE MEASUREMENT OF UNCERTAINTY BEFORE 1900*, at 169–74 (1986), and Daniel Linz et al., *Estimating Community Standards: The Use of Social Science Evidence in an Obscenity Prosecution*, 55 PUB. OP. Q. 80, 103–04 (1991).

<sup>241</sup> STIGLER, *supra* note 240, at 170; Linz, *supra* note 240, at 103.

<sup>242</sup> See STIGLER, *supra* note 240, at 201 (noting that while Quetelet’s average man has been debunked, the concept is still prevalent in social research); Linz, *supra* note 240, at 103 (“The law also seems to presume that there is such a thing as an ‘average’ person . . . [T]his idea is similar to the now discredited concept of the ‘average man’ . . .”).

<sup>243</sup> Robert L. Rabin, *The Historical Development of the Fault Principle: A Reinterpretation*, 15 GA. L. REV. 925, 931 (1981).

has been met. For example, in *Kline v. 1500 Massachusetts Avenue Apartment Corp.*,<sup>244</sup> the D.C. Circuit held that “evidence of custom amongst landlords of the same class of building may play a significant role in determining if the standard [of care] has been met.”<sup>245</sup>

The essence of the positive approach can be summarized in the following way. First, as with the normative definitions, positive definitions posit the existence of a reasonable person who is not a real entity but a hypothetical construct against which the alleged tortfeasor’s behavior can be evaluated. Second, the nature of this hypothetical reasonable person can be approximated using empirically observable data. In other words, we can learn about the reasonable person by looking at the society. This implies that the reasonable person is in some sense a derivative of the society. Whether done through formal analysis or informal means, we term the process by which observations are combined the “empirical estimation” of the reasonable person.<sup>246</sup>

At a minimum, empirical estimation requires the following. First, the estimate of the reasonable person must come from observations of the society, and not from the views of the researcher. That is, the researcher’s individual views are irrelevant except insofar as he or she is a member of the society. Second, holding all else constant, additional data in support of a particular conclusion will increase the probability that the conclusion is true: More evidence is preferable to less. Third, researchers may not make *ex ante* distinctions among individuals in the society, because they lack an objective basis on which to judge one individual more important than another. Fourth, because the reasonable person is part of a legal test, it must be possible, at least on some occasion, to find that someone has behaved unreasonably.

We will show that it is impossible to empirically estimate the reasonable person. It follows that any statistical methodology used to study the reasonable person is necessarily invalid. Any judge or juror who claims to understand the nature of the reasonable person from his or her familiarity with the society is mistaken. Such a task is not merely difficult or impractical; it is impossible. Whatever else these methods may estimate, it cannot possibly be the reasonable person. To prove this, we employ a theorem from a branch of economics known

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<sup>244</sup> 439 F.2d 477 (D.C. Cir. 1970).

<sup>245</sup> *Id.* at 486.

<sup>246</sup> Empirical estimation occurs when a researcher uses formal statistical methods to summarize scientifically gathered data. A judge performs a version of empirical estimation when she forms her understanding of the reasonable person using informally gained knowledge about the society in which she lives.

as social choice theory.<sup>247</sup> The theorem is analogous to the famous impossibility theorem for which Kenneth Arrow was awarded the Nobel Prize in 1972.<sup>248</sup>

Arrow studied social welfare<sup>249</sup> and faced the following problem. Economists view society as a set of individuals. The claim that a new piece of legislation will benefit society means that on some level it will benefit the individuals in the society. Perhaps not all of them will benefit, but there must be a connection between individual welfare and social welfare. Ultimately, for example, the welfare of France must be derived from the welfare of the French.

Arrow realized that not every method of combining individual welfare to form social welfare is desirable. Consider the following examples. First, assume that the welfare of France is defined as the welfare of that country's reigning monarch. The monarch lives in France; consequently, the country's welfare is derived from that of its residents. But as many residents of France recognized in 1789, this definition is not desirable because it is dictatorial—only the well-being of a single individual was taken into account.

Second, when Congress enacts a new statute, there are normally winners and losers. Some people benefit from the law, and some people are harmed. It is thus not always obvious how to determine whether the law is, in fact, good for the society as a whole. However, assume for a moment that everyone benefits from the law. This is the clear case in which we can say that the law is good for society.

Third, suppose that the voters need to elect a new postmaster and they agree to choose the candidate who maximizes social welfare. The candidates are Alice, Bob, Charles, and Deborah. Deborah is the candidate most preferred by the society, followed by Bob, Alice, and then

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<sup>247</sup> For the original version of the theorem, see Alan D. Miller, *Essays on Law and Economics* 38–55 (Apr. 6, 2009) (unpublished Ph.D. dissertation, California Institute of Technology), available at [http://thesis.library.caltech.edu/2283/1/Miller\\_Dissertation.pdf](http://thesis.library.caltech.edu/2283/1/Miller_Dissertation.pdf). The theorem was originally applied to community standards as used in obscenity law. *Id.*

<sup>248</sup> KENNETH J. ARROW, *SOCIAL CHOICE AND INDIVIDUAL VALUES* (2d ed. 1963). The impossibility theorem was one of several accomplishments for which Arrow was awarded the Nobel Prize.

<sup>249</sup> Arrow modeled both individual and social welfare as preference rankings. *Id.* at 1–3. A preference ranking is an ordering of alternatives that is both complete and transitive. An ordering is complete if every two alternatives can be compared, so that each person either (a) prefers apples to bananas, (b) prefers bananas to apples, or (c) is indifferent between apples and bananas. An ordering is transitive if whenever (a) apples are preferred to bananas and (b) bananas are preferred to cherries, the necessary implication is that apples are preferred to cherries. A preference ordering can be written as a list from top down, with indifferent items being placed on the same line. The idea of preference rankings seems to have originated with Vilfredo Pareto in the late nineteenth century. See Joseph A. Schumpeter, *Vilfredo Pareto (1848–1923)*, 63 Q.J. ECON. 147, 162 (1949) (noting Pareto's early use of “preference curves”).

Charles. After seeing that he is the least preferred, Charles decides to drop out of the race. Though the individual voters' preferences do not change, the collective ranking of the candidates may change. Now Bob may be the most preferred, followed by Deborah and then Alice. This may seem a bit odd. Why should the outcome of the election depend on whether Charles, an irrelevant candidate, decides to drop out of the race?

With these three examples in mind, Arrow formulated three axioms that any method of combining welfare should satisfy. The first axiom, *non-dictatorship*, requires that the method not be dictatorial. The second axiom, *Pareto*, requires that a law that is good for each individual must be considered good for the collective.<sup>250</sup> The third axiom, *independence of irrelevant alternatives*, requires that the outcome (whether Deborah or Bob is elected) must not depend on the presence of irrelevant alternatives (whether Charles is a candidate).<sup>251</sup>

Arrow's attempt to find a definition of social welfare that satisfies these three axioms led to a startling result. No previously known method of comparing welfare satisfies all three axioms.<sup>252</sup> In fact, however hard we try, we will never discover a method of comparing welfare that can do so. Arrow showed that such a method cannot exist: It is impossible to derive social welfare from the preferences or welfare of the individuals who comprise the society without violating one of the three axioms. Arrow's theorem shocked the economics profession when it was released in 1951.<sup>253</sup> It cast doubt on the fundamental assumptions of welfare economics, and, in the process, it launched a new field of research in economics, the above-mentioned social choice theory.<sup>254</sup>

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<sup>250</sup> This axiom is named after Vilfredo Pareto, the nineteenth century Italian economist who developed the concept. For more on the life and work of Vilfredo Pareto, see generally Schumpeter, *supra* note 249.

<sup>251</sup> On the independence of irrelevant alternatives axiom, see HERVÉ MOULIN, AXIOMS OF COOPERATIVE DECISION MAKING 283–91 (1988), in which the author discusses the axiom through formal mathematical proofs. For a non-technical explanation of the axiom, which illustrates the mathematical principles through natural language, see Leo Katz, *A Theory of Loopholes*, 39 J. LEGAL STUD. 1, 12–17 (2010).

<sup>252</sup> Some methods of comparing welfare, most notably the compensation principle, are invalid because they violate transitivity and thus do not lead to a preference ordering. ARROW, *supra* note 248, at 34–37.

<sup>253</sup> KENNETH J. ARROW, SOCIAL CHOICE AND INDIVIDUAL VALUES (1951).

<sup>254</sup> The literature on social choice is vast. See generally 1 HANDBOOK OF SOCIAL CHOICE AND WELFARE (Kenneth J. Arrow et al. eds., 2002) (providing an introductory survey of current studies and applications of social choice theory and welfare economics); MOULIN, *supra* note 251 (using social choice theory and game theory to analyze cooperative decision making); AMARTYA SEN, COLLECTIVE CHOICE AND SOCIAL WELFARE (1970) (discussing the relationship between social policy objectives and the preferences of individual members of society through economics, political science, and philosophy).

The abstract and mathematical nature of Arrow's model makes it possible to apply the powerful implications of his theorem to problems seemingly distinct from the study of social welfare. In several important instances, Arrow's theorem and other results from social choice theory have been applied to the study of legal institutions.<sup>255</sup> For example, Matthew Spitzer developed a model to study multicriteria choice processes used by schools in admissions, by the Federal Communications Commission (FCC) in administrative decisions, and by courts when making judicial determinations.<sup>256</sup> In a multicriteria choice process, several criteria (such as grades, test scores, race, and income, in the form of rankings) are used to make a decision (such as whom to admit to a university). Spitzer showed that organizations using such processes could not satisfy a reasonable set of axioms.<sup>257</sup> This implied that the FCC's decision-making process did not adhere to each of the properties that it purported to satisfy.<sup>258</sup>

In a related vein, Frank Easterbrook used Arrow's theorem to defend the Supreme Court against the criticism that its decisions were

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<sup>255</sup> See, e.g., Bruce Chapman, *The Rational and the Reasonable: Social Choice Theory and Adjudication*, 61 U. CHI. L. REV. 41 (1994) (using social choice theory to analyze adjudication); Katz, *supra* note 251 (using Arrow's theorem to analyze legal loopholes); Lewis A. Kornhauser, *Modeling Collegial Courts I: Path-Dependence*, 12 INT'L REV. L. & ECON. 169 (1992) (modeling the decisional processes of judicial panels); Lewis A. Kornhauser, *Modeling Collegial Courts II: Legal Doctrine*, 8 J.L. ECON. & ORG. 441 (1992) (modeling the decisional processes of judicial panels working within a framework of legal doctrine); Lewis A. Kornhauser & Lawrence G. Sager, *The One and the Many: Adjudication in Collegial Courts*, 81 CALIF. L. REV. 1 (1993) (discussing how voting protocol can affect the decisions of judicial panels); Lewis A. Kornhauser & Lawrence G. Sager, *Unpacking the Court*, 96 YALE L.J. 82 (1986) (analyzing how group decision making affects judicial processes); Jonathan R. Nash, *A Context-Sensitive Voting Protocol Paradigm for Multimember Courts*, 56 STAN. L. REV. 75 (2003) (suggesting solutions to the issues raised by the voting protocols of judicial panels); David Post & Stephen C. Salop, *Rowing Against the Tidewater: A Theory of Voting by Multijudge Panels*, 80 GEO. L.J. 743 (1992) (arguing that judges on panels should follow issue-based voting procedures); John M. Rogers, *"I Vote This Way Because I'm Wrong": The Supreme Court Justice as Epimenides*, 79 KY. L.J. 439 (1991) (arguing that judges on panels should not vote contrary to their stated analysis); Maxwell L. Stearns, *The Misguided Renaissance of Social Choice*, 103 YALE L.J. 1219 (1994) (using social choice theory to argue against expanded judicial intervention into legislative processes). Indeed, Arrow's result has been criticized with respect to its implications for the study of legal institutions. See Richard H. Pildes & Elizabeth S. Anderson, *Slinging Arrows at Democracy: Social Choice Theory, Value Pluralism, and Democratic Politics*, 90 COLUM. L. REV. 2121, 2127 (1990) (criticizing the Arrowian model because of the specific approach Arrow used to model welfare). But the Pildes and Anderson critique does not apply to this Article, as our argument does not rely on the specific technical assumption to which they object.

<sup>256</sup> Matthew L. Spitzer, *Multicriteria Choice Processes: An Application of Public Choice Theory to Bakke, the FCC, and the Courts*, 88 YALE L.J. 717 (1979).

<sup>257</sup> *Id.* at 725.

<sup>258</sup> See *id.* at 732, 748 (explaining how the legal standards the Federal Communications Commission purported to satisfy are mutually exclusive axioms).

inconsistent.<sup>259</sup> Without significant (and, he argued, undesirable) institutional reform, such as reducing the number of justices from nine to one—thereby annulling the nondictatorship axiom—decisions of a set of individually consistent justices should be expected to yield occasional inconsistencies.<sup>260</sup> More recently, Louis Kaplow and Steven Shavell used a welfare model to argue that it is impossible for society to be both fair and efficient.<sup>261</sup> Suppose that every person is indifferent between two alternatives, which we will label “the negligence rule” and “no liability.” Kaplow and Shavell show that if society is efficient (in the sense that it satisfies Arrow’s Pareto axiom) and certain technical assumptions are met, then society must be indifferent between the negligence rule and no liability.<sup>262</sup> This must be true regardless of any fairness criteria that require, for example, tortfeasors to compensate their innocent victims.

Following the tradition of Arrow, we use the axiomatic approach.<sup>263</sup> We introduce a new model in which the reasonable person is an aggregate of society. No assumption is made that the aggregate has any specific form. We only assume that it is possible to know the reasonable person if one knows the society well enough. This is the essence of any positive definition. In particular, we combine beliefs of individuals in the society to form a societal belief of reasonableness. The number of ways to combine these beliefs is infinite. Of course, not all are valid. We formulate five basic axioms; each is a necessary characteristic of any aggregate consistent with a positive

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<sup>259</sup> Frank H. Easterbrook, *Ways of Criticizing the Court*, 95 HARV. L. REV. 802 (1982).

<sup>260</sup> See *id.* at 823–31 (applying Arrow’s theorem to court decisions to explain the inevitability of inconsistent outcomes).

<sup>261</sup> Louis Kaplow & Steven Shavell, *Any Non-welfarist Method of Policy Assessment Violates the Pareto Principle*, 109 J. POL. ECON. 281 (2001); see also Marc Fleurbaey et al., *Any Non-welfarist Method of Policy Assessment Violates the Pareto Principle: A Comment*, 111 J. POL. ECON. 1382, 1384 (2003) (“[A]lthough Kaplow and Shavell make a contribution to this literature, . . . their result does not at all warrant the bold conclusion that any non-welfarist method of policy assessment violates the weak Pareto principle.”); Louis Kaplow & Steven Shavell, *Any Non-welfarist Method of Policy Assessment Violates the Pareto Principle: Reply*, 112 J. POL. ECON. 249, 250 (2004) (responding to the critique of Fleurbaey, Tungodden, and Chang by noting that it is irrelevant given that Kaplow and Shavell’s argument was aimed at a limited restriction and not a broad restriction).

<sup>262</sup> Kaplow & Shavell, *supra* note 261, at 284.

<sup>263</sup> The axiomatic approach is a method by which problems of interest are formalized using mathematics or logic and possible solutions are analyzed according to properties that they satisfy. Examples of problems studied using the axiomatic approach include fairness (often expressed in terms of the allocation of scarce resources), behavior (by reducing previously unfalsifiable assumptions about human behavior to testable axioms), and aggregation (the combining of several inputs into a single output). The focus of this Article is on opinion aggregation, in which the relevant inputs are individual opinions and the outcome is a “collective” opinion.

definition of the reasonable person. We show that it is impossible to satisfy all five axioms at once.

One prior attempt has been made to model the reasonable person using the axiomatic approach. Thirty years ago, game theorist Ariel Rubinstein introduced a social choice model of the reasonable person, in which the definition of the reasonable person was partly normative and partly positive.<sup>264</sup> In Rubinstein's model, the reasonable person is formed by aggregating "realization functions," or expectations as to the outcomes of specific actions, and preferences over outcomes held by individuals in the society.<sup>265</sup> Rubinstein required that the "reasonable man" be formed through independent aggregation of realization functions and preferences and that the reasonable man preserve unanimous agreements with respect to (a) realization of specific actions and (b) induced preferences over actions. He then showed that no non-dictatorial aggregation method satisfies these requirements.<sup>266</sup>

## *B. The Model*

### *1. Definitions*

We start with the idea that the reasonable person is the aggregate of society.<sup>267</sup> An aggregate is a representative of a group, derived from that group.<sup>268</sup> Two types of aggregates should be familiar to most readers. First, empirical research is based on the idea of aggregating data generated from observations to form a conclusion. Common statistical aggregates used in empirical research include the mean, the median, and the 90th percentile.<sup>269</sup> Second, informal aggregates are used in everyday conversation. For example, stereotypes are general-

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<sup>264</sup> Ariel Rubinstein, *The Reasonable Man: A Social Choice Approach*, 15 *THEORY & DECISION* 151 (1983).

<sup>265</sup> *Id.* at 153.

<sup>266</sup> *Id.* at 153–54. Both ARROW, *supra* note 248, at 7, and Rubinstein, *supra* note 264, at 155, assume a reasonably rich domain of admissible preferences. If the domain is restricted, these results do not necessarily hold.

<sup>267</sup> The idea that the reasonable person is an aggregate of society can be traced at least as far back as Oliver Wendell Holmes, who described the standard as "a certain average of conduct." OLIVER W. HOLMES, *THE COMMON LAW* 99 (Harvard Univ. Press 2009) (1881). For a formal model in which the reasonable person is an aggregate of society, see Rubinstein, *supra* note 264, at 154–56.

<sup>268</sup> See Robert Wilson, *On the Theory of Aggregation*, 10 *J. ECON. THEORY* 89, 90 (1975) (defining an aggregate). Aggregation in this sense is distinct from the idea of an aggregate as a sum.

<sup>269</sup> See, e.g., GEORGE CASELLA & ROGER L. BERGER, *STATISTICAL INFERENCE* 211–27 (2d ed. 2002) (describing common statistical aggregates).

izations formed from a set of observations about a group.<sup>270</sup> Contemporary community standards, used by courts to determine whether a form of human expression is obscene for purposes of the First Amendment, are often said to be an aggregate of the standards of individuals.<sup>271</sup> Social welfare is an aggregate of individual welfare.<sup>272</sup> These aggregates are semi-empirical: No formal process is used, but they are based on informal observations of behavior.<sup>273</sup>

While the earliest concept of the reasonable person was taken as an analogy from the then-developing field of statistics,<sup>274</sup> we lack objective means for reducing human beings or their beliefs to a single number. As a result, statistical concepts like the average and the median are not directly applicable. However, this does not rule out definitions based on more sophisticated statistical techniques. We make no assumption as to whether the positive definition of the reasonable person involves a formal statistical process or a more informal technique. Nor do we assume that the reasonable person is an average or any specific aggregate. We assume only that the reasonable person derives from some combination of the attributes of the members of society. If we know the individuals in society, we know the reasonable person. Otherwise, it would be impossible to define the reasonable person through empirical observation.

The society that we aggregate is a set of individuals.<sup>275</sup> Generally, it will encompass all adult individuals of sound mind, although for

<sup>270</sup> These stereotypes are often transmitted to individuals who have little or no direct experience with the group. However, a belief about a group which is not derived initially from direct experience (for example, the belief that Jews drink the blood of Christian children) is not a true stereotype. Cf. GAVIN I. LANGMUIR, *TOWARD A DEFINITION OF ANTISEMITISM* 306–08 (1990) (distinguishing xenophobic stereotypes from chimerical stereotypes).

<sup>271</sup> See, e.g., *United States v. Danley*, 523 F.2d 369, 370 (9th Cir. 1975) (“[C]ommunity standards are aggregates of the attitudes of average people—people who are neither ‘particularly susceptible or sensitive . . . or indeed . . . totally insensitive.’” (quoting *Miller v. California*, 413 U.S. 15, 33 (1973))); *Skywalker Records, Inc. v. Navarro*, 739 F. Supp. 578, 589 (S.D. Fla. 1990) (“[The community standard] is a legal concept whereby a single perspective is derived from the aggregation or average of everyone’s attitudes in the area including persons with differing degrees of tolerance.”).

<sup>272</sup> Social welfare can also be studied in a formal way if individual preferences are first measured using choice data. See ANDREU MAS-COLELL ET AL., *MICROECONOMIC THEORY* 9–14 (1995) (describing the theory of revealed preference). Of course, any method of combining individual preferences to form social welfare will necessarily violate one or more of the axioms formulated by Arrow, whether done through a formal procedure or through informal observation.

<sup>273</sup> Beliefs are not observed directly but inferred from behavior, which can include the act of writing one’s beliefs down on paper.

<sup>274</sup> See *supra* notes 239–43 and accompanying text (describing historical conceptions of the reasonable person).

<sup>275</sup> The “society” corresponds to the “community” in *Miller*, *supra* note 247, at 43.

some specific definitions it may be less or differently inclusive. In reported sexual harassment cases, it may consist mainly of women,<sup>276</sup> and in medical malpractice cases, only of doctors.<sup>277</sup> In tort cases involving children aged fourteen years, it might be the set of children of that age.<sup>278</sup> By requiring a sound mind, we may exclude individuals with diagnosable mental problems. We do not exclude individuals merely because their views are unconventional; doing so would defeat the point of aggregation.<sup>279</sup>

Human beings are complex creatures; it may be neither possible nor desirable to aggregate every human characteristic. Under the empirical approach, the legally relevant set of characteristics that we aggregate is individual views of reasonable behavior. We can describe these views in the following way. First, there is a very large set of possible actions.<sup>280</sup> The set of actions contains every possible thing that an individual can do—run away quickly, move away slowly, fire a gun, cross the street after looking both ways, stand still and do nothing, and so forth. We think of this set as infinite. Second, there is a set of states of knowledge.<sup>281</sup> A state of knowledge comprises everything that the actor knew and sensed before acting. In one case, the actor's state of knowledge may be that it is a dark and stormy night and that he or she hears nothing but a wolf howling in the distance. In another case, the actor's state of knowledge may be that it is warm and sunny and that there is a faint smell of alcohol on the bus driver's breath. Whether an action is reasonable depends on the actor's state of knowledge.

A view of reasonableness can be completely described by the set of actions considered reasonable for each particular state of knowl-

<sup>276</sup> See *supra* Part I.C.1 (discussing the feminist approach to the reasonable person).

<sup>277</sup> For example, Arizona defines the standard of care for health care providers as “that degree of care, skill and learning expected of a reasonable, prudent health care provider in the profession or class to which he belongs within the state acting in the same or similar circumstances.” ARIZ. REV. STAT. § 12-563(1) (2011).

<sup>278</sup> See, e.g., *Cleveland Rolling-Mill Co. v. Corrigan*, 20 N.E. 466, 469 (Ohio 1889) (“[A] child is held to no greater care than is usually possessed by children of the same age.”); RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL AND EMOTIONAL HARM § 10 (2010) (“A child’s conduct is negligent if it does not conform to that of a reasonably careful person of the same age, intelligence, and experience . . .”).

<sup>279</sup> We leave open the possibility that extreme views can be excluded as long as “extreme” is defined in reference to other views and not ex ante by comparison to some normative standard.

<sup>280</sup> The set of “actions” corresponds to the set of “works” in Miller, *supra* note 247, at 43. Here we make the same assumption that there is a space of works, isomorphic to the unit interval and the set of Borel subsets, endowed with a measure that is countably additive, non-atomic, non-negative, and finite.

<sup>281</sup> Here “states of knowledge” correspond to “issues” in Miller, *supra* note 247, at 43.

edge in which the actor may have been at the time.<sup>282</sup> That is, according to a particular view of reasonableness, there is a set of reasonable actions on a dark and stormy night, and there is a set of reasonable actions on a clear and sunny day when the actor smells a faint whiff of alcohol on his bus driver's breath. These two sets may be identical, they may overlap, or they may be entirely disjoint. In all cases, however, the sets must be non-empty, regardless of what the actor knew or sensed. For any given state of knowledge, some actions must be reasonable.<sup>283</sup> A legal regime in which an individual will be held liable regardless of the action she takes would be a strict liability regime, not a negligence regime. Formally, we require that the set of reasonable actions be greater than zero percent of the set of all possible actions.<sup>284</sup>

For each combination of an action and a state of knowledge, we will use the term reaction. Crossing the street when the signal says "Walk" and doing so when the signal says "Don't Walk" are identical actions, but different reactions, because they involve different states of knowledge.

Views of reasonableness can be compared according to permissiveness. An individual becomes more permissive if she changes her mind and decides that some reactions that she previously thought unreasonable are now reasonable, but does not change her mind about any reactions she previously thought to be reasonable. For example, suppose that yesterday Alice considered it unreasonable to cross the street when the "Don't Walk" signal was lit, but overnight she had a change of heart and today considers the same reaction reasonable. Alice-today is more permissive than Alice-yesterday. Note that not all views of reasonableness can be compared in this way. It is possible that Alice changes her mind in both ways; she now decides, contrary to her prior beliefs, that it is reasonable to drive at the speed limit on a very rainy day, and also that it is unreasonable to jog down a crowded street.

Each individual within the society has a view of reasonableness. According to positive definitions, the reasonable person of the

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<sup>282</sup> Here "view of reasonableness" corresponds to "standard" in Miller, *supra* note 247, at 43.

<sup>283</sup> Recall, though, that the set of actions includes the act of doing nothing.

<sup>284</sup> This corresponds to the requirement that "judgments" must be of less than full measure in Miller, *supra* note 247, at 43. Judgments and standards of obscenity are the flip side of views of reasonableness. In both cases, something must be allowed: There must be some possible non-obscene works, or there must be some reasonable action. In the former case, the requirement that there be some possible non-obscene works means that not all works can be obscene.

common law is itself a view of reasonableness derived from the views of the individuals within the society.<sup>285</sup>

## 2. *Axioms*

We have formulated five axioms that a positive definition of the reasonable person must satisfy.<sup>286</sup>

### a. Respect for Unanimity

Society is unanimous about everything if there is a common view of reasonableness, so that every individual shares identical beliefs about every action and every particular state of knowledge (as in a world of clones). Defining the reasonable person is a problem primarily because of disagreement within society. Were society unanimous about everything, we would not face a difficult problem: The reasonable person should be identical to the common belief. If the reasonable person is identical to the common belief when society is unanimous about everything, the reasonable person is said to respect unanimity.

Respect for unanimity is implied by the first requirement of empirical estimation, namely that the reasonable person must come from observations of society and not from the views of the researcher.<sup>287</sup> If the society is composed of perfectly identical clones, then all observable data will be consistent with the common belief. Consequently, the empirical estimate will be consistent with the common belief. If the reasonable person does not respect unanimity, the reasonable person might not be identical to the common belief. In that case, the empirical estimate will not be consistent with the reasonable person.

### b. Responsiveness

The society becomes more permissive if each individual in it either (a) becomes more permissive or (b) does not change at all. The reasonable person is responsive to changes in society if, whenever society becomes more permissive, the reasonable person either (a) becomes more permissive or (b) does not change at all.

For example, suppose that the reasonable person believes that it is reasonable to drive at thirty miles per hour in a residential neigh-

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<sup>285</sup> The “reasonable person” corresponds to “community standards” in Miller, *supra* note 247, at 43.

<sup>286</sup> For the formal definitions of the first four properties, see Miller, *supra* note 247, at 44–45.

<sup>287</sup> See *supra* Part II.A, which elaborates on the minimum requirement that empirical estimates be based on observation rather than on the views of the researcher.

borhood when no children are visible. John, a local advocate for road safety, disagrees and believes that this reaction is unreasonable. However, after a long conversation with his neighbors, John changes his mind and decides that this reaction is reasonable. Because John becomes more permissive and no other members of the society change their views, the society becomes more permissive. Responsiveness means that the reasonable person must either become more permissive or not change as society becomes more permissive. The reasonable person must still believe that it is reasonable to drive at thirty miles per hour in a residential neighborhood when no children are visible. Any other result would make little sense.

Responsiveness is implied by the second requirement of empirical estimation. Holding all else constant, additional data in support of a conclusion increases the probability that the conclusion is true.<sup>288</sup> If society becomes more permissive, the empirical observations either (a) will not change or (b) will indicate a more permissive society. An increase in the number of individuals who permit a particular reaction is additional evidence that the reasonable person will permit that reaction. If the reasonable person is not responsive to changes in society, she might become less permissive when the society becomes more permissive.<sup>289</sup> In that case, the empirical estimate will not be consistent with the reasonable person.

### c. Anonymity

The reasonable person is anonymous if the view of each individual in the society is given equal weight. For example, suppose that Alice and Bob trade their views so that today Alice believes what Bob believed yesterday and Bob believes what Alice believed yesterday. In this case, the beliefs held by members of the society have remained the same. The only change has been in the identities of the specific individuals holding them. Because the reasonable person is anonymous, the reasonable person must not change.

Anonymity is implied by the third requirement of empirical estimation, whereby researchers must not make *ex ante* distinctions between individuals in society.<sup>290</sup> In other words, the name of the person attached to each observation must not affect the estimate. Consequently, the empirical estimate will not change if individuals

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<sup>288</sup> See *supra* Part II.A for a discussion on the four requirements of the empirical estimation of the reasonable person.

<sup>289</sup> Note that, while the second requirement of empirical estimation is stated in probabilistic terms, the responsiveness axiom is deterministic. The latter can be thought of as the special case in which all probabilities are set to zero or one.

<sup>290</sup> See *supra* Part II.A, which explains this requirement of empirical estimation.

trade their views. If the reasonable person is not anonymous, the estimate might change if individuals traded their views. In that case, the empirical estimate would not be consistent with the reasonable person.

#### d. Neutrality

The reasonable person is neutral if distinctions between actions<sup>291</sup> made by the reasonable person arise from distinctions made by individuals in society, and not from the definition of the reasonable person itself. The labels that we assign to actions should be irrelevant; instead, individuals' beliefs should determine the reasonable person's position. For example, consider two actions: firing a gun and throwing a rock. Suppose all individuals swap their beliefs about these actions, so that tomorrow each considers firing a gun to be reasonable in the exact circumstances in which he or she considered throwing a rock to be reasonable yesterday, and similarly, tomorrow each considers throwing a rock to be reasonable in the exact circumstances in which he or she considered firing a gun to be reasonable yesterday. Then, if throwing a rock were reasonable under a particular state of knowledge yesterday, firing a gun must be reasonable under that same state of knowledge tomorrow.

As with respect for unanimity, neutrality is implied by the first requirement of empirical estimation.<sup>292</sup> A researcher may not favor one conclusion over another unless that conclusion is supported by observations. If individuals do not distinguish between two actions, the observable data about these two actions will be identical. Consequently, the empirical estimate will not distinguish between these two actions. If the reasonable person is not neutral, the estimate might make a distinction between the two actions. In that case, the empirical estimate will not be consistent with the reasonable person.

#### e. Minimal Functionality

Let us consider a specific definition of the reasonable person, according to which a reaction is considered unreasonable if and only if every single individual considers the action to be unreasonable. If a single individual believed the reaction to be reasonable, the reasonable person would necessarily agree. This definition would not work in practice because the defendant in a negligence action is generally a

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<sup>291</sup> It is important to note that this axiom is defined with respect to actions and not reactions. Also, it applies only to two actions of the same size.

<sup>292</sup> See *supra* Part II.A, which elaborates on the minimum requirement that empirical estimates be based on observation rather than on the views of the researcher.

member of the society. Consequently, by raising an opposing viewpoint, the defendant could guarantee that he would be found to have acted reasonably. The law would not function. The reasonable person is said to be minimally functional if there is at least one reaction that can be found to be unreasonable with less than unanimous consent.<sup>293</sup>

The possibility remains that a defendant in a negligence action is not a member of the society. A court might consider the views of a foreigner irrelevant when trying to determine the empirically observed practice within its community. Yet even in this case a standard under which a reaction could never be found unreasonable without unanimous consent seems unworkable. As Kenneth Abraham writes, “We have too many different ways of behaving, and too many different conceptions of how people ought to behave, to expect widespread agreement about which individual behaviors count as reasonable and which as negligent.”<sup>294</sup> Minimal functionality is implied by the fourth requirement of empirical estimation: It must be possible, at least on some occasion, to find that someone behaved unreasonably.<sup>295</sup> If the reasonable person is not minimally functional, then no individual will ever be found negligent.

### 3. *Theorem*

Thus the five axioms—respect for unanimity, responsiveness, anonymity, neutrality, and minimal functionality—are implied by the requirements of empirical estimation. Consequently, for every empirical definition there must be a corresponding reasonable person that satisfies these five requirements. What can we say about this reasonable person? In Subpart C below we defend the following theorem:

It is impossible for the reasonable person simultaneously to respect unanimity and to be responsive, anonymous, neutral, and minimally functional.

By applying this theorem, we are led to a stark conclusion: The reasonable person does not and cannot exist.<sup>296</sup> Because it is impossible for the reasonable person to satisfy all five axioms at the same time, one cannot empirically estimate the reasonable person. The positive definition is a myth.

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<sup>293</sup> The concept of minimal functionality is not included in Miller’s model of community standards, *supra* note 247.

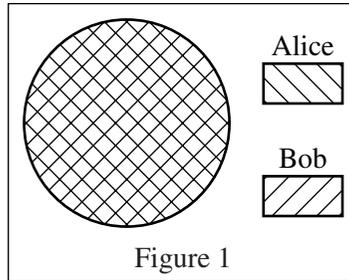
<sup>294</sup> Abraham, *supra* note 64, at 1195.

<sup>295</sup> See *supra* Part II.A for a discussion on the four requirements of the empirical estimation of the reasonable person.

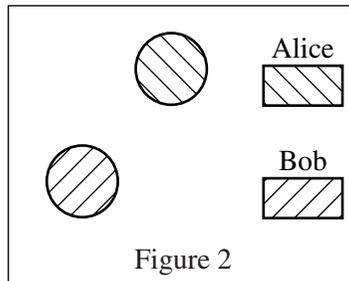
<sup>296</sup> More precisely, the theorem states that if the reasonable person respects unanimity and is responsive, anonymous, and neutral, a reaction is unreasonable if and only if there is unanimous consent. This clearly contradicts minimal functionality, thus leading to impossibility.

### C. Defending the Theorem

While the full proof of the theorem is somewhat technical, we provide a short explanation for why this impossibility exists.<sup>297</sup> For ease of exposition, we will simplify and assume that there are two individuals, Alice and Bob, and only one state of knowledge. The argument can easily be extended to any number of individuals and any number of states of knowledge. We start with two special cases. Each is highly unlikely to occur in practice, but each serves as a useful point of reference.



In the first case, Alice and Bob have wholly identical views about all actions (Figure 1). Because they agree about everything, the unanimity principle requires that the reasonable person be equivalent to Alice and to Bob. We do not expect to see complete unanimity within the society, but if we do, at least we know that this will not be a difficult case.



In the second case, Alice and Bob have very different views. There is no action that both of them consider reasonable. For each, the set of reasonable actions is of the same size relative to the entire set of possible actions (Figure 2).<sup>298</sup> This case is entirely symmetrical. For reasons we explain below, the actions that are in neither set—those which both consider unreasonable—must be unreasonable.

<sup>297</sup> For the full proof of the theorem, see Miller, *supra* note 247, at 44.

<sup>298</sup> There are several ways in which the sizes of the set of actions can be measured. For our purposes the choice is irrelevant; it is important only that a consistent method be used.

Because of the symmetry, the anonymity and neutrality principles imply that both Alice's set and Bob's set must be treated in exactly the same way. Therefore, all of these actions are unreasonable or all are reasonable. But if the former were the case, all possible actions would be unreasonable. This would violate the assumption that something must be reasonable.<sup>299</sup> Consequently, in this special case, all actions that someone (Alice or Bob) considers reasonable must be reasonable. This second case, like the first, is unlikely to occur in practice; however, should it occur, it would not be difficult to resolve.

These two cases are relevant because they serve as reference cases. Each describes the rare case in which the answer (how to combine the opinions) is clear. Recall the responsiveness axiom: If everyone becomes more permissive or stays the same, the reasonable person must become more permissive or stay the same. It should not be the case that Alice becomes more permissive and that the reasonable person becomes less permissive as a result. In other words, reactions that are reasonable must remain reasonable. A corollary is that if everyone moves in the other direction and becomes less permissive or does not change, unreasonable reactions must remain unreasonable.

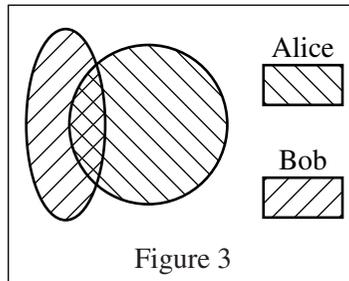
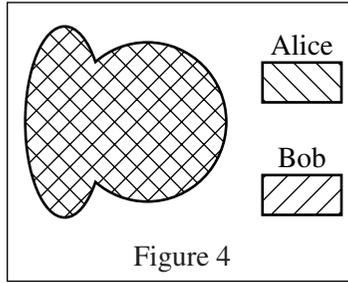


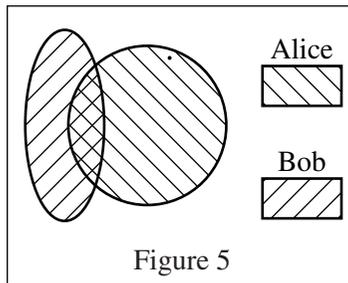
Figure 3

Earlier we said that if no one considers a reaction to be reasonable, it must be unreasonable according to the reasonable person. To see this, let Alice and Bob believe anything they like (Figure 3). Now let Alice and Bob become more permissive so that each considers an action to be reasonable if either had thought the action reasonable beforehand (Figure 4).

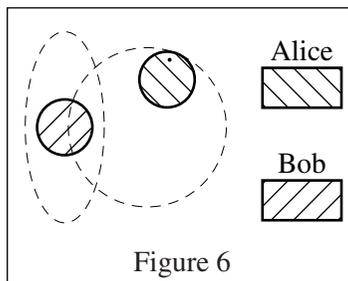
<sup>299</sup> See *supra* Part II.B.1 (introducing the assumption that some action must be reasonable).



Then Alice and Bob will be unanimous about everything, just as in our first case. Actions that both considered to be unreasonable are still unreasonable, and consequently must be unreasonable according to the reasonable person. If we move back to before the change, Alice and Bob become less permissive, so actions that are unreasonable *ex post* (Figure 4) must be unreasonable *ex ante* (Figure 3). Therefore, any action that all consider to be unreasonable is unreasonable according to the reasonable person.



Now let us recall the second case; we will use it to show that any action that either considers reasonable must be considered reasonable by the reasonable person. To see this, again let Alice and Bob believe anything they like (Figure 3). Choose some action—any action—that either Alice or Bob or both considers reasonable. We will show that the reasonable person must consider this action reasonable. To simplify, assume that Alice, but not Bob, considers this particular action reasonable. This action is denoted by the black dot (Figure 5).



Imagine that Alice and Bob become less permissive, removing actions from their reasonable sets so that (1) Alice still considers this particular action reasonable, (2) no action is reasonable to both, and (3) the sets of reasonable actions are of the same size (Figure 6). Then we are exactly in our second case, so the specific reaction must be reasonable. If we move back to before the change, described in Figure 5, Alice and Bob become more permissive, so actions that are reasonable ex post (Figure 6) must have been reasonable ex ante (Figure 5). This means that this specific action must be reasonable according to the reasonable person. Because we showed this for a generic action, it must be true that every action that is considered reasonable by at least one individual must be considered reasonable by the reasonable person.

From these two cases, we have deduced that an action is reasonable according to the reasonable person when it is considered reasonable by one or more individuals, and that an action is unreasonable otherwise. This rule, however, is not minimally functional. This proves the impossibility of the positive definition of the reasonable person, for the reasonable person cannot simultaneously respect unanimity and be responsive, anonymous, neutral, and minimally functional.

In this Subpart we have assumed that there are two individuals. However, nothing in our argument is specific to this particular case. First, the results under our two extreme reference cases—complete agreement and complete disagreement—would remain the same in a society of more than two individuals. In both cases, an action is reasonable whenever one or more individuals consider it so. Next, the rest of the proof is constructed by comparing other cases to these extremes. We show that, no matter which views of reasonableness exist in the society, we can always get to the case of complete agreement by making individuals more permissive, and we can get to the case of complete disagreement by making individuals less permissive. This argument is independent of the number of individuals in the society; it is equally true whether there are two people or two million.

#### *D. Majoritarianism and Other Rules*

The theorem we have described states that the reasonable person cannot possibly respect unanimity and be responsive, anonymous, neutral, and minimally functional at the same time. What would happen if we dropped one of these axioms? In this Subpart, we describe some rules that satisfy precisely four of the five axioms.<sup>300</sup>

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<sup>300</sup> At this point we do not have any examples of rules which are responsive, anonymous, neutral, and minimally functional, but which do not respect unanimity. This may

Consider, for example, the Unanimity Rule, under which the reasonable person considers a reaction reasonable if one or more individuals view the reaction as reasonable. A reaction is unreasonable only if all individuals consider it unreasonable. The Unanimity Rule is clearly not minimally functional. Minimal functionality requires that it be possible to find a reaction unreasonable with less than unanimous agreement. Under this rule, a reaction will be deemed unreasonable only with unanimous consent. However, the Unanimity Rule satisfies the other four axioms because it respects unanimity and is responsive, anonymous, and neutral. In fact, any rule that satisfies these four axioms must necessarily be the Unanimity Rule. Every other method that can be used to combine individual views of reasonableness into the reasonable person must violate respect for unanimity, responsiveness, anonymity, or neutrality.

A common and legitimate question is why the positive definition should not simply be majoritarian. Consider the Majority Rule, under which a reaction is reasonable if a majority considers it reasonable. The Majority Rule is flawed because it is not well-defined in this context. It is possible that for some states of knowledge no action will be considered reasonable by a majority. In that case, a defendant in a negligence action will be found liable regardless of the action he or she undertook. This is completely at odds with the modern concept of negligence. In practice we would never actually be able to see this problem: When we see a finding of liability predicated on a majoritarian concept of the reasonable person, we can never know whether the defendant was found liable because she was at fault or because all actions would have been considered unreasonable in this circumstance.

One might argue that the will of the majority should still be followed whenever possible. Consider the following rules: the Semi-Majority Rule and the Variable Threshold Rules. The Semi-Majority Rule holds that for each state of knowledge, an action is reasonable if a majority considers it reasonable, unless 100% of the actions were deemed unreasonable for this state of knowledge. In the latter case an action is reasonable if one or more individuals consider it reasonable (that is, the Unanimity Rule is used). The Variable Threshold Rules hold that for each state of knowledge, an action is

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indicate that no such rules exist. However, we have not yet established whether this is the case. If no such rules exist, then it would be possible to remove respect for unanimity from the theorem. Because it is hard to imagine why, in any circumstance, we would not want the reasonable person to respect unanimity, this possibility is probably of more interest to mathematicians than to lawyers.

reasonable if  $x$  or more individuals consider it reasonable, where  $x$  varies so that some actions (more than 0%) are reasonable.

The Semi-Majority Rule eliminates the possibility that for some state of knowledge, 100% of the actions will be deemed unreasonable by (1) using the Majority Rule whenever it does not lead to 100% of the actions being declared unreasonable, and (2) using the Unanimity Rule in other cases. A Semi-Majority Rule is in fact a Variable Threshold Rule: Reactions are deemed reasonable if  $x$  or more individuals consider them reasonable, where  $x$  is either one person (Unanimity Rule) or 50% of the population (Majority Rule), so that some actions will always be reasonable.<sup>301</sup> Semi-Majority and other Variable Threshold Rules are well-defined aggregation rules: In no state of knowledge will all actions be deemed unreasonable. However, these rules violate the *responsiveness* axiom, which requires the reasonable person to move in the direction of the individual views of reasonableness, if the reasonable person changes at all. Under the Semi-Majority Rule and other Variable Threshold Rules, cases exist in which individuals will be found liable *because* all individuals in the society have become more permissive.<sup>302</sup> These rules satisfy the other four axioms: They respect unanimity and are anonymous, neutral, and minimally functional.

Anonymity requires that the reasonable person treat the views of all members of the community equally. Consider the following three rules: Oligarchy, Oligarchy Plus, and Dictatorship. Oligarchy holds that a reaction is unreasonable if all oligarchs consider it unreasonable. Oligarchy Plus holds that a reaction is unreasonable if all oligarchs and at least one non-oligarch consider it unreasonable. Lastly, Dictatorship holds that a reaction is reasonable if the dictator considers it reasonable.

Each of these rules privileges certain individuals' views (the "oligarchs") over those of others. For example, Oligarchy ignores the views of all non-oligarchs, while Oligarchy Plus considers the views of non-oligarchs but gives them less weight. The set of oligarchs can be limited to law professors, economists, or some other community of interest. Dictatorship is a type of Oligarchy where there is only a

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<sup>301</sup> The Unanimity Rule is not in itself a Variable Threshold Rule because the level  $x$  does not vary but is always equal to the number of individuals in the society.

<sup>302</sup> Suppose we are using a Semi-Majority Rule, and the Majority Rule would result in 100% of the actions being considered unreasonable. Alice's set of reasonable actions is A, Bob's set is B, and these sets do not overlap. Suppose Alice and Bob get more permissive, so there is a small set  $A \cap B$  where they overlap. Now only actions in  $A \cap B$  are reasonable, and all actions in A or B that are not in  $A \cap B$  are unreasonable. So Alice and Bob became more permissive, and some actions became unreasonable as a result.

single oligarch. The Unanimity Rule is a special case of Oligarchy in which all individuals are oligarchs. With the exception of the special case of the Unanimity Rule discussed above, these rules clearly violate the anonymity axiom but respect unanimity and are responsive, neutral, and minimally functional.

Neutrality requires that the reasonable person treat each action, *ex ante*, in the same way. Consider the following two rules: the Running Rule and the Calories Rule. The Running Rule holds that all actions except running away at fifty miles per hour are judged according to the Unanimity Rule, while *running* is reasonable only if a majority considers it reasonable. The Calories Rule holds that an action is unreasonable if (1) all persons consider it unreasonable or (2) just one individual considers it reasonable and the action burns more calories than any action considered reasonable by the other individuals.

The Running Rule is very simple: It treats one action, running away at fifty miles per hour, differently from all other actions.<sup>303</sup> The Calories Rule is more complicated. It uses objective criteria (the number of calories burned by an action) to distinguish actions. An action can be found unreasonable with less-than-unanimous agreement of the society if it burns a very large number of calories. These two rules respect unanimity and are responsive, anonymous, and minimally functional, but they violate the neutrality axiom.

### *E. Changing the Model*

So far, we have assumed that views of reasonableness are entirely subjective. However, one might argue that reasonableness has an objective component. For example, actions can be compared according to their expected economic costs. It may be acceptable to use a rule that violates some of the axioms if that rule leads to objectively better outcomes. Nothing is inherently wrong with this approach, but a normative judgment must be made when deciding how to incorporate objective criteria into a definition of reasonableness. The extreme form of the approach described would hold that a reaction should be viewed as reasonable only if it is welfare maximizing. This is the economic definition of reasonableness.<sup>304</sup> Perhaps this is a good definition for those who value welfare maximization, but it is clearly normative, not positive.

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<sup>303</sup> The Running Rule is one member of a family of rules in which the Unanimity Rule is applied to all but a finite set of actions.

<sup>304</sup> See *supra* Part I.A.1 (explaining that the economic definition considers a person unreasonable if he or she does not act to maximize welfare).

Moreover, if one takes the view that reasonableness contains an objective component, one might wish to analyze reasonableness with a different model. In particular, our model rules out the existence of individuals who believe that no action is reasonable. This excludes jurors and juries that find the defendant liable regardless of the facts. The model does not rule out the existence of individuals who believe that all actions are reasonable. Thus a particular juror or jury might never find the defendant liable, regardless of the facts. This feature of the model does not lack justification; there is no reason that an individual must necessarily find some actions unreasonable in every state of knowledge. In some cases a juror might conceivably believe that everything should be permitted. However, one could plausibly argue that there are states of knowledge for which some actions should be unreasonable. A modified version of this model might study the case in which some reactions are necessarily unreasonable.

#### CONCLUSION

This Article sets forth and defends a conclusive and unprecedented answer to one of the most fundamental issues in tort law, which has bedeviled and divided courts and scholars for centuries: the essence of reasonableness. It argues that normative definitions are categorically preferable to positive definitions because the latter are logically unacceptable, whereas the former merely raise partially surmountable practical problems. Part I presented the most salient normative definitions of the reasonable person and explained their practical weaknesses. It showed that these weaknesses surface mostly at the margins and can be alleviated to some extent. In contrast, Part II showed that a positive definition of reasonableness is a logical impossibility. It imposed five axioms—which are necessary characteristics of any positive definition of the reasonable person—and proved that no positive definition can satisfy all five.

We wish to conclude with four comments. To begin with, this Article does not purport to endorse a particular definition of reasonableness. It makes the first, though most fundamental, step in determining how the concept should be understood and applied. The next step necessarily involves selection from the normative menu and entails additional choices, such as those between monistic and pluralistic normative models and between concrete normative ethical theories, be they consequentialist, deontological, or virtue ethicist.

Second, reasonableness is an omnipresent overarching legal concept that is used as a yardstick in most areas of law, including adminis-

trative law, constitutional law, contract law, and criminal law.<sup>305</sup> So while this Article focuses on tort law and theory, our analysis of reasonableness may be applicable *mutatis mutandis* in many other contexts.

Third, the theoretical contribution of this paper has implications beyond reasonableness. One possible application is to “community standards” used in adjudicating obscenity cases.<sup>306</sup> To understand this application, imagine a set containing all possible artworks. Each individual’s standard can be described by the artworks he or she considers obscene. The theorem implies that community standards are not derived from individual standards. While this relationship may seem surprising, the historical connection between obscenity and negligence is quite strong. Judge Learned Hand introduced the community standards test as an analogy to the reasonable person.<sup>307</sup>

Fourth, one might ask whether the jury can serve as a proxy for the reasonable person. Can we aggregate the beliefs of twelve jurors more easily than those of an entire society? Here the minimal functionality axiom loses much of its appeal. A serious problem would arise if each citizen in a city of five million could veto a finding of unreasonableness, but not if one juror out of twelve held this power. As mentioned in Part II.D, the Unanimity Rule uniquely satisfies the remaining four axioms. This provides a new argument against the recent trend to eliminate the unanimous jury rule in civil cases.

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<sup>305</sup> See Unikel, *supra* note 14, at 327 (describing how a wide variety of laws now rely on a reasonableness standard).

<sup>306</sup> *Miller v. California*, 413 U.S. 15, 24 (1973) (quoting *Kois v. Wisconsin*, 408 U.S. 229, 230 (1972)) (discussing the guidelines for reviewing obscenity determinations).

<sup>307</sup> The origin of the “contemporary community standards” approach can be traced back to dicta in *United States v. Kennerley*, 209 F. 119 (S.D.N.Y. 1913), in which Judge Learned Hand proposed that the definition of obscenity should reflect “the average conscience of the time,” indicating “the present critical point in the compromise between candor and shame at which the community may have arrived.” *Id.* at 121. In this context, the term “average” is an explicit reference to the common-law concept of the reasonable person: “If letters must, like other kinds of conduct, be subject to the social sense of what is right, it would seem that a jury should in each case establish the standard much as they do in cases of negligence.” *Id.*