Economic Analysis in a Unified Conception of Tort Law

by

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Abstract: The controversy regarding the appropriate purpose of tort law continues to rage. Some advocate that tort rules should minimize accident costs as an instrument for maximizing social welfare and wealth. Others argue that as a matter of corrective justice, tort rules should fairly protect the individual right to physical security. These two conceptions of tort law are fundamentally incompatible and mutually exclusive. It is a separate question whether the requirements of welfare economics are compatible with those of fairness. This article establishes the possibility of a unified conception of tort liability, one capable of fully accounting for the central tenets of welfare economics and the fair protection of individual rights. The unified conception incorporates economic analysis into a fair theory of tort law. Under this approach, the individual right to physical security constrains the ability of the tort system to promote social welfare. The constraint yields rights-based tort rules that are consistent with the Pareto principle and satisfy the equity-efficiency criterion, the two central tenets of welfare economics. The approach is illustrated by a rights-based conception of fairness that adequately describes the important tort doctrines while unifying the compensation and deterrence functions of tort law. As this example illustrates, the constraint imposed by a rights-based principle does not make welfare considerations irrelevant. It merely defines the conditions under which tort rules can appropriately rely upon welfare considerations. Further analysis shows why any rights-based tort system is likely to provide an important role for economic analysis, one that operates within the constrained space of welfare concerns. The economic inquiry no longer exclusively focuses on the minimization of costs. Freed from such a limited and controversial role, economic analysis becomes integral to a unified conception of tort law.

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Throughout its history, the economic analysis of tort law has focused almost exclusively on one question. How should tort rules be formulated so as to minimize the social cost of accidents? Throughout its history, the economic analysis of tort law has also been controversial. The two phenomenon are related. It is highly controversial whether tort law should minimize accident costs to the exclusion of fairness concerns, which is why the economic analysis of tort law has been controversial.[1] But economic analysis need not be limited to such a controversial role. It can play an important role in formulating tort rules designed to protect fairly individual rights. Identifying such a role shows that it is possible to conceptualize tort law in a unified manner, one that that fully accounts for the central tenets of welfare economics and the fair protection of individual rights.

The controversy associated with the economic analysis of tort law was initially stirred up by the provocative work of Richard Posner. Although he was not the first to apply economic analysis to tort law, Posner strongly influenced the newly developing field by forcefully propounding the claim that tort law should maximize wealth by minimizing accident costs.[2] The approach subsequently foundered as scholars, including Posner, recognized that cost-benefit analysis cannot determine initial entitlements, the basic architecture of any legal rule.[3] This limitation of economic analysis was then addressed by Louis Kaplow and Steven Shavell, who have constructed a proof showing that a "fair" tort rule can make everyone worse off than the welfare-maximizing tort rule.[4] This outcome violates the Pareto principle, which requires any

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[1] *See* Jules L. Coleman, *The Grounds of Welfare*, 112 YALE L. J. 1511 (2003) (describing the set of controversial issues posed by the economic analysis of tort law) [hereinafter "Grounds of Welfare"].

[2] RICHARD A. POSNER, THE ECONOMICS ANALYSIS OF LAW (1972); RICHARD A. POSNER, THE ECONOMICS OF JUSTICE (1981); WILLIAM M. LANDES & RICHARD A. POSNER, THE ECONOMIC STRUCTURE OF TORT LAW (1987).

[3] Cost-benefit analysis depends on prices which in turn depend on the initial allocation of property rights. *See* Lewis A. Kornhauser, *Wealth Maximization* in 3 THE NEW PALGRAVE DICTIONARY OF ECONOMICS AND THE LAW 679 (Peter Newman ed. 1998). Posner now agrees that wealth maximization is limited in this manner. *See* Richard A. Posner, *Wealth Maximization and Tort Law: A Philosophical Inquiry*, *in* PHILOSOPHICAL FOUNDATIONS OF TORT LAW 99, 99-100 (David G. Owen ed. 1995).

[4] *See* Louis Kaplow & Steven Shavell, *The Conflict Between Notions of Fairness and the Pareto Principle*, 1 AMER. L. & ECON. REV. 63 (1999)[hereinafter "Conflict"]; Louis Kaplow & Steven Shavell, *Any Non-welfarist Method of Policy Assessment Violates the Pareto Principle*, 109 J.

change in liability rules that would make at least one person better off and no one worse off. By showing how a principle of fairness can block a change in rules that would make everyone better off, Kaplow and Shavell provide a reason for rejecting a fair tort system in favor of one that maximizes welfare consistently with the Pareto principle. A welfare-maximizing tort system ordinarily relies upon cost-minimizing liability rules, thereby reestablishing the single role for economic analysis in tort law.[5] *All* issues of concern to the tort system ought to be resolved in the cost-minimizing manner, the general method for maximizing social welfare and wealth.

Not surprisingly, the claim that tort law ought to be nothing more than an exercise of welfare economics has provoked an equally extreme response from critics. The most forceful critique has come from those who maintain that tort liability is best justified by the principle of corrective justice.[6] The principle is grounded in a conception of individual rights and obligations, giving one who is responsible for the wrongful losses of another a duty to repair those losses.[7] This justification "rules out the economic analysis of [tort] law."[8]

Despite the claims of exclusivity made by the proponents of efficiency and fairness, each conception of tort liability is included in the common understanding of tort law. The most widespread understanding of tort law, developed by the work of a large number of the most influential tort scholars in the Twentieth Century, maintains that the purpose of tort law is to compensate and deter.[9] The compensatory function relates to fairness concerns, and the deterrence function relates the economic rationale for tort liability. This understanding of tort law has been adopted by the *Restatement (Third) of Torts*, which justifies negligence liability "as remedying an injustice inflicted on the plaintiff by the defendant" and "providing the defendant with appropriate safety incentives [which] improves the overall welfare of society, and thereby advances economic goals." [10]

Rather than solve the dispute regarding the appropriate roles of efficiency and fairness in tort law, the compensation-and-deterrence rationale may merely restate the problem. The rationale, in other words, may embody a problematic conception of tort liability. A cost-minimizing tort system is incompatible with the adequate protection of individual rights.[11] The deterrence rationale for tort liability also appears to be incompatible with the compensatory

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POL. ECON. 281 (2001)[hereinafter "Policy Assessment"]. The quotations around "fair" signify the particular analytic definition to the term given by Kaplow and Shavell that is discussed in Part II.A.

[5] *See* LOUIS KAPLOW & STEVEN SHAVELL, FAIRNESS VERSUS WELFARE 85-184 (2002)[hereinafter "Fairness"](arguing that tort rules should be evaluated exclusively in terms of their impact on welfare, which ordinarily involves minimizing the total cost of accidents).

[6] *See, e.g.*,JULES L. COLEMAN, THE PRACTICE OF PRINCIPLE: IN DEFENCE OF A PRAGMATIST APPROACH TO LEGAL THEORY 1-63 (2001) (arguing that corrective justice can provide an account of tort law whereas economic analysis fails to do so). For an account of the development and tenor of the efficiency versus fairness debate, see Gary T. Schwartz, *Mixed Theories of Tort Law: Affirming Both Deterrence and Corrective Justice*, 75 TEX. L. REV. 1801, 1802-11 (1997).

[7] *See* Part I.

[8] ERNEST WEINRIB, THE IDEA OF PRIVATE LAW 132 (1995).

[9] See John C.P. Goldberg, Twentieth-Century Tort Theory, 91 GEO. L.J. 513, 521-37 (2003).

[10] *See* RESTATEMENT OF THE LAW TORTS: LIABILITY FOR PHYSICAL HARMS (BASIC PRINCIPLES) § 6 cmt. b (Tent. Draft No. 1, March 28, 2001).

[11] *See* Part I.

rationale.[12] The compensation-and-deterrence rationale therefore may embody conflicting rationales rather than providing a unified conception of tort liability. Such a "mixed" understanding of tort law is problematic. "Understood from the standpoint of mutually independent goals, [tort] law is a congeries of unharmonized and competing purposes."[13]

In order for the deterrence-and-compensation rationale to offer a unified conception of tort law, it must find justification in a theory capable of explaining the compensation and deterrence functions of tort law. Such a unified conception must also be capable of explaining the varied roles of efficiency and fairness concerns in tort law. A unified conception cannot depend on the conventional economic analysis of tort law due to its exclusion of fairness concerns. A unified conception must instead depend on some other form of economic analysis, one appropriate for a fair tort system.

It is an open question whether a rights-based fairness norm like the principle of corrective justice can be complemented by economic analysis.[14] No doubt, many believe that this question has been ignored for good reasons. The conventional economic question is forward-looking: Would liability in this case minimize accident costs by deterring accidents in the future? That inquiry seems to be utterly irrelevant to the backward-looking normative question: Is compensation in this case warranted because the defendant was responsible for violating the plaintiff's right?

Despite superficial appearances, the idea that economic analysis is incompatible with or irrelevant to a principle of fairness is mistaken. Economic analysis can have an important role to play in a fair tort system, one that significantly differs from its role in an efficient tort system.

Part I locates the antinomy that divides the tort norm of allocative efficiency from a rights-based conception of fairness. In an effort to guide the choice between these competing norms, Kaplow and Shavell have constructed a proof showing that a rights-based tort rule can violate the Pareto principle. As is true of any proof, the conclusion is necessarily limited by its underlying assumptions. Part II identifies a rights-based conception of fairness that departs from the assumptions in the Kaplow and Shavell proof and does not violate the Pareto principle. Part II concludes by showing that such fair tort rules are fully consistent with the Pareto principle, whereas cost-minimizing tort rules are only formally but not substantively consistent with the Pareto principle. Contrary to the claims of Kaplow and Shavell, the Pareto principle can favor fair tort rules rather than cost-minimizing rules.

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[12] WEINRIB, supra note __, at 5 ("[C]ompensation and deterrence … have no intrinsic connection: nothing about compensation as such justifies its limitation to those who are the victims of deterrable harms, just as nothing about deterrence as such justifies its limitation to acts that produce compensable injury.).

[13] *Id.*

[14] The issue has been explored, though not systematically. *See* Robert Cooter, *Torts as the Union of Liberty and Efficiency: An Essay on Causation*, 63 CHI.-KENT L. REV. 523 (1987); Mark Geistfeld, *Economics, Moral Philosophy, and the Positive Analysis of Tort Law* in PHILOSOPHY AND THE LAW OF TORTS 250, 267-69 (Gerald Postema ed. 2001); Schwartz, supra note __, at 1824-28. A similar, though different approach seeks to ascertain the extent to which efficiency and fairness justifications coincide or overlap. *See* Geistfeld, *supra*, at 265-67; Schwartz, *supra* note __, at 1815-23.

A policy that does not violate the Pareto principle can still be rejected by welfare economists for violating the efficiency-equity criterion, which selects the set of policies capable of attaining the given distributional objective at the lowest total cost. One tenet of the conventional economic analysis of tort law is that the tort system should minimize accident costs, because the income tax system has a comparative cost advantage in effectuating any redistributions required as a matter of fairness. Part III shows that the distributions required by a rights-based principle of fairness are effectuated at lower cost by the tort system than by tax transfers.

Rights-based tort rules thus satisfy the central tenets of welfare economics, making a fair tort system consistent with welfare economics. But does a fair tort system need economic analysis? The answer obviously depends on the relevant conception of fairness. Part IV accordingly defines a rights-based conception of fairness and then identifies the important role played by economic analysis within such a fair tort system. Although the protection of welfare is not the reason or justification for the individual rights of concern to the principle of fairness, the adequate protection of rights frequently reduces to a consideration of how tort rules affect welfare. In these circumstances, the concerns of fairness can be addressed by "distributive economic analysis," which seeks to determine how liability rules affect the distribution of welfare between right-holders and duty-holders. Insofar as the principle of fairness requires a fair distribution of welfare, the substantive content of the liability rule can be derived by distributive economic analysis.

Due to the various conceptions of a rights-based tort system, this role for economic analysis may be peculiar to this particular conception of fairness. Part V provides reasons for concluding that economic analysis is likely to have an important role in any rights-based tort system. A rights-based principle of fairness constrains the ability of the tort system to promote social welfare at the expense of the individual right to physical security. A constraint does not make welfare irrelevant, nor does it entail a tort system that departs from the fundamental tenets of welfare economics. Instead, economic analysis within a rights-based constraint yields a unified conception of tort law.

I. Efficiency versus Fairness?

Tort liability is a method for mediating the conflicting interests of individuals engaged in risky behavior. An automobile driver, for example, typically desires the transportation to promote her liberty interests. As an unwanted byproduct of that activity, the driver exposes pedestrians to a risk of injury. A pedestrian also transports herself in furtherance of her liberty interests. In the event the driver accidentally injures the pedestrian, by definition the pedestrian's interest in physical security has been harmed. The pedestrian also suffers emotional harms (pain and suffering) and intangible economic harm (like medical expenses). If the driver is obligated to compensate those harms, the monetary damages would be detrimental to her economic interests. Any precautionary obligations tort law imposes on the driver would also be detrimental to her liberty interests. Similarly, any precautionary obligations imposed on the pedestrian would be detrimental to her liberty interests. The way in which tort law regulates the risky interaction therefore means at least one party's interests will be burdened or harmed: Either the pedestrian's interests in physical security and liberty; or the driver's liberty interests, including the economic interest. The appropriate mediation of these interests is the basic question that must be addressed by tort law in this particular context.

Tort law traditionally has distinguished between liberty and security interests, giving "peculiar importance" to the nature of the interests and their social value.[15] Distinguishing the various types of interests only matters for purposes of priority. Tort law consistently has given one's interest in physical security priority over a conflicting liberty interest of another.[16] As a leading torts treatise states, "the law has always placed a higher value upon human safety than upon mere rights in property."[17]

The tort tradition of distinguishing between security and liberty interests is rejected by the conventional economic analysis of tort law. That distinction is an essential aspect of rights-based theories of tort law, importantly differentiating the two theories of tort law.

Economic analysis assumes that individuals rationally maximize their welfare. A particular interest matters only as an input to individual welfare. Whatever interests the individual chooses to promote, doing so at the least cost would enhance her welfare as compared to more costly methods, all else being equal. Cost minimization promotes individual welfare while increasing individual (and social) wealth.

Because the minimization of costs does not require distinction among various types individual interests, the basic problem posed by tort law fundamentally changes from its traditional conception. The driver's liberty interest did not cause injury to the pedestrian's security interest. Rather, the two parties interacted, the interaction caused injury to one party, and shifting the loss to the other via tort liability merely makes that party the accident victim.[18] As a

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[15] RESTATEMENT (SECOND) OF TORTS § 77 cmt. i (1965). *See, e.g.*, OLIVER WENDELL HOLMES, THE COMMON LAW 144 (1881) (concluding that tort law "is intended to reconcile the policy of letting accidents lie where they fall, and the reasonable freedom of others with the protection of the individual from injury"); W. PAGE KEETON ET AL., PROSSER AND KEETON ON THE LAW OF TORTS § 3, at 16-17 (5th ed. 1984) (observing that "weighing the interests [of security and liberty] is by no means peculiar to the law of torts, but it has been carried to its greatest lengths and has received its most general conscious recognition in this field"). Throughout I will use rather simplistic notions of the relevant interests, such as "liberty" and "security" interests. The philosophical explication of these interests, however, is much more nuanced. *See* Stephen Perry, *Harm, History, and Counterfactuals*, San Diego L. Rev. (forthcoming 2004) (differentiating core interests from secondary or recursive interests).

[16] The priority of security over the liberty interest is the express justification for the various defenses to intentional torts involving property. *See, e.g.*, RESTATEMENT (SECOND) OF TORTS § 77 (1965). The priority also determines the issue of "reasonableness" regarding the conduct. *Id*. cmt. i. The question of reasonableness, which addresses the mediation of normatively acceptable, competing interests, is central to negligence law. Hence the priority applies to accidental harms. *Cf. id*. § 1 cmt. d ("[T]he interest in bodily security is protected against not only intentional invasion but against negligent invasion or invasion by the mischances inseparable from an abnormally dangerous activity."); *id*. ch. 2, introductory note, at 22 (stating that "interest in freedom from bodily harm is given the greatest protection" by various intentional torts and also by tort rules concerning negligence and strict liability); *id*. § 281 cmt. b (stating that one element of negligence is "that the interest which is invaded must be one which is protected, not only against acts intended to invade it, but also against unintentional invasions").

[17] KEETON ET AL., *supra* note __, at 132.

[18] *See* Ronald Coase, *The Problem of Social Cost*, 3 J. L. & ECON. 1, 2 (1960) ("We are dealing with a problem of a reciprocal nature. . . . The real question that has to be decided is: should A be allowed to harm B or should B be allowed to harm A?").

general proposition, social welfare would not be increased by tort rules that merely shift the loss between two parties. One party's gain is another's loss. The injury, though unfortunate, is like a sunk cost that cannot be recovered. A compensatory obligation is relevant to conventional economic analysis only insofar as it would alter incentives for future risky behavior in a manner that reduces expected accident costs and increases social welfare.

The fairness issue arises because a cost-minimizing tort system gives no special priority to the individual interest in physical security. The probability of injury, the injury itself, precautions and administrative expenses are all components of accident costs to be minimized. Consequently, the individual interest in physical security must be compromised if doing so would increase social welfare. The compromise of a morally fundamental individual interest for reasons of social expediency is rejected by rights-based theories of tort law, including those based on the principle of corrective justice.

The principle of corrective justice "states that individuals who are responsible for the wrongful losses of others have a duty to repair those losses."[19] The duty to repair follows from one's responsibility for the right infringement. According to most corrective-justice theorists, the individual right involves security of the person and tangible property. To be treated as a right, the security interest must have priority over competing interests; the individual interest in physical security cannot be compromised merely because doing so would confer greater wealth or welfare on others.[20] As Stephen Perry describes the position, "At least within nonconsequentialist moral theory, it makes sense to think of this [security] interest as morally fundamental, and hence as falling outside the purview of distributive justice; our physical persons belong to us from the outset, and are accordingly not subject to a social distribution of any kind."[21]

The interest in physical security is of fundamental moral importance for reasons of autonomy.[22] As Perry elaborates: "The main reason that personal injury constitutes harm [that may require redress as a matter of corrective justice] is that it interferes with personal autonomy.

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[19] COLEMAN, THE PRACTICE OF PRINCIPLE, *supra* note __, at 15.

[20] *See* RONALD DWORKIN, TAKING RIGHTS SERIOUSLY 194 (1977) (explaining why the "'rights' of the majority as such" "cannot count as a justification for overruling individual rights").

[21] Stephen R. Perry, *On the Relationship Between Corrective Justice and Distributive Justice* in OXFORD ESSAYS ON JURISPRUDENCE, FOURTH SERIES 237, 239 (Jeremy Horder ed.) [hereinafter "Relationship"]; *see also* WEINRIB, PRIVATE LAW, *supra* note __, at 202 n. 73 ("Under Kantian right, bodily integrity is an innate right and thus prior to acquired rights of property").

[22] *See, e.g.*, Ernest J. Weinrib, *Correlativity, Personality, and the Emerging Consensus on Corrective Justice*, 2 THEORETICAL INQUIRIES IN LAW (Online Edition) 13-20 (Jan. 2001), *at* http://www.bepress.com/til/default/Vol2/iss1/art4 (arguing that "personality," which "signifies the capacity for purposiveness without regard to particular purposes," is the content of the correlative right and duty under the juridical conception of corrective justice) [hereinafter "Consensus"]; *see also* Gregory C. Keating, *A Social Contract Conception of the Law of Accidents* in PHILOSOPHY AND THE LAW OF TORTS 22, 34 (Gerald Postema ed. 2001)(arguing that under a Kantian conception of reasonableness, our "interest in security is entitled to more protection than our interest in liberty" for risks threatening severe physical injury, because such risks "threaten the premature end, or the severe crippling, of our agency" whereas the curtailment of liberty has less of a burden on "our capacities to pursue our ends over the course of complete lives"); ARTHUR RIPSTEIN, EQUALITY, RESPONSIBILITY, AND LAW 55 (developing a conception of reasonableness according to which "specific liberty interests and security interests are protected, based on a conception of their importance for leading an autonomous life").

It interferes, that is to say, with the set of opportunities and options from which one is able to choose what to do in one's life."[23] Or as Jules Coleman puts it: "The capacity to live a life, and not merely to have a life happen to one, depends on being able to express one's autonomy and on being protected against persons who are unprepared to mitigate their action in light of the interests of others."[24]

Rights-based tort rules accordingly prioritize the individual interest in physical security, whereas cost-minimizing tort rules do not. Hence the debate between efficiency and fairness importantly centers on the relative weight given to liberty and security interests.[25] Should tort rules minimize accident costs, giving equal weight to liberty and security interests? Or should tort rules prioritize the security interest as a means of protecting the individual right to physical security?

The question is normative and outside the competence of an economist *qua* economist. This does not mean, though, that economic analysis has nothing to say about the question. According to a proof recently established by Louis Kaplow and Steven Shavell, a "fair" tort rule can violate the Pareto principle by making everyone worse off compared to an exclusively welfare-based rule.[26] That outcome seems unacceptable, so Kaplow and Shavell conclude that tort rules should be formulated for the exclusive purpose of promoting individual welfare.[27]

Of the varied "fair" rules that violate the Pareto principle, Kaplow and Shavell claim that rights-based tort rules are among them.[28] The claim has troubling implications for a unified theory of tort law. The Pareto principle is integral to welfare economics, embodying one of the two concepts of economic efficiency (the other being allocative efficiency). "It is no exaggeration to say that the entire modern microeconomic theory of government policy intervention in the economy (including cost-benefit analysis) is predicated on this idea."[29] An inherent conflict between the Pareto principle and rights-based tort rules therefore would seem to eliminate the possibility of a truly unified tort theory, one that accounts for the foundational concerns of both economists and philosophers.

Numerous scholars, including lawyer economists, are skeptical of the Kaplow and Shavell claim that legal rules should depend only on considerations of welfare.[30] To evaluate this

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[23] Perry, *supra* note __, at 256.
[24] Coleman, *Grounds of Welfare*, *supra* note __, at 1542.
[25] *See* Richard W. Wright, *Justice and Reasonable Care in Negligence Law*, 47 AMER. J. JURIS. 143, 145 (2002)(showing that "all of the leading justice theorists by now have recognized [that] the aggregate-risk-utility test [which gives equal weight to security and liberty interests] cannot be reconciled with the principles of justice").
[26] *E.g.*, KAPLOW & SHAVELL, FAIRNESS, *supra* note __ .
[27] *Id*. at 87-154.
[28] *Id.* at 26, n.18.
[29] B. Lockwood, *Pareto Efficiency* in 3 THE NEW PALGRAVE DICTIONARY OF ECONOMICS 811, 811 (John Eatwell et al. eds. 1998).
[30] *See, e.g.*, Howard Chang, *A Liberal Theory of Social Welfare: Fairness, Utility, and the Pareto Principle*, 110 YALE L.J. 173 (2000) (arguing that individual waiver of rights eliminates the inconsistency between fairness and the Pareto principle); Michael B. Dorff, *Why Welfare Depends on Fairness: A Reply to Kaplow and Shavell*, 75 S. CAL. L. REV. 847 (2002)(arguing that fairness concerns are necessarily reintroduced in the formulation of the social welfare function); Daniel A. Farber, *What (If Anything) Can Economics Say About Equity?*, 101 MICH. L. REV. 1791, 1803

controversy in the context of tort law, we must determine whether the Kaplow and Shavell proof shows that any rights-based tort rule necessarily violates the Pareto principle. Is it necessary to reject a central tenet of welfare economics in order to incorporate economic analysis into a fair theory of tort law?

II. The Pareto Principle and Rights-Based Tort Rules

Although Kaplow and Shavell claim that all rights-based tort rules violate the Pareto principle, the assumptions in their proof do not apply to any rights-based tort rule finding justification in individual autonomy. Given the conditions otherwise assumed in the Kaplow and Shavell proof, straightforward analysis shows that such right-based tort rules do not violate the Pareto principle. Further analysis shows that the Pareto principle favors these fair tort rules over cost-minimizing tort rules.

A. *The Consistency Between Rights-Based Tort Rules and the Pareto Principle*

The formal logic in the Kaplow and Shavell proof is valid, so the conclusion of the proof necessarily applies to all tort rules satisfying the assumptions of the proof. These assumptions are not satisfied by all rights-based tort rules. To see why, it is helpful first to understand why a rights-based tort rule need not violate the Pareto principle.

Consider a tort rule governing the interactions between drivers and pedestrians. The Pareto principle evaluates a change from the status quo, so determining the status quo or initial starting point is critical to the analysis. Initial entitlements cannot be determined by economic analysis. Costs depend on prices which in turn depend on initial entitlements.[31] Hence we can assume that the principle of fairness justifies an entitlement that is inefficient for not minimizing costs. More precisely, suppose the initial entitlement gives the pedestrian some right that is not allocatively efficient, a right protected by a fair tort rule.

To determine whether this right violates the Pareto principle, we can consider the circumstances addressed by the Kaplow and Shavell proof. The proof assumes a world in which "individuals understand fully how various situations affect their well-being."[32] The proof also implicitly assumes that transaction costs are sufficiently low to allow for any form of redistribution.[33] Thus the Kaplow and Shavell proof can be evaluated in a world of perfect

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(2003) (arguing that the Kaplow and Shavell proof does not rule out fairness concerns because such concerns are required to pick a social welfare function {SWF] and "with the right choice of SWF we can justify practically any outcome we want"); Lewis A. Kornhauser, *Preference, Well-Being, and Morality in Social Decisions*, 32 J. LEGAL STUD. 303 (2003)(arguing, among other things, that the Kaplow and Shavell proof inappropriately conflates individual judgments and preferences).

[31] *See* Lewis A. Kornhauser, *Wealth Maximization* in 3 THE NEW PALGRAVE DICTIONARY OF ECONOMICS AND THE LAW 679 (Peter Newman ed. 1998).

[32] Kaplow & Shavell,*Conflict* , *supra* note __, at 65.

[33] Kaplow and Shavell have two proofs. One involves individuals who are symmetric in all relevant respects, making distributional considerations (and distributional costs) irrelevant. Kaplow & Shavell, *Conflict*, *supra* note __. The other proof allows for individual differences. For the differences to be meaningful, the welfare gain in moving from (fair) *state-f* to (welfaristic) *state-w* must be unequally distributed across the individuals. Some individuals may be harmed by

information and costless contracting (a form of feasible redistribution). Suppose, then, that well-informed pedestrians and drivers can costlessly contract over the allocation of risk. In these circumstances, is there a necessary conflict between the Pareto principle and a rights-based tort rule?

In the absence of transaction costs, the pedestrian as right-holder will always exercise or waive her right in exchange for adequate compensation from the driver whenever it would be allocatively efficient to do so.[34] This conclusion follows from the Coase theorem.[35] The parties will agree to structure the risky interaction so as to minimize costs and maximize the gains from contracting with one another, the allocatively efficient outcome. The entitlement or individual right underlying the fair tort rule only affects the distribution of wealth between pedestrians (who receive compensation) and drivers (who must pay it). If the entitlement permits the parties to agree upon the allocatively efficient outcome, it necessarily satisfies the Pareto principle in these circumstances.[36]

This aspect of the entitlement implicates the tort doctrine of assumption of risk. Pursuant to this doctrine, the agreement between the driver and pedestrian absolves the driver of liability for the risk.[37] The doctrine therefore would enable the parties to agree upon the allocatively efficient outcome. Consequently, if the doctrine of assumption of risk can be justified by the principle of fairness, there is no conflict between fairness and the Pareto principle in these circumstances.

According to the principle of corrective justice, one who is responsible for the wrongful losses of another has a duty to repair those losses. A loss is not wrongful if the person who suffered the loss voluntarily consented to face the risk. "The person who in fact secures consent before acting does no wrong. If the victim believes himself or herself to have consented, no wrong is done." [38]

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the change to *state-w*, so *state-w* need not involve a Pareto improvement over *state-f*. Kaplow and Shavell construct a new (redistributed) *state-r* with the same total welfare as *state-w*, in which the total welfare gain in moving from *state-f* to *state-w* is redistributed across all individuals so as to make each one better off in *state-r* than in *state-f*. Each person now prefers *state-r* over *state-f*, so adhering to *state-f* for fairness reasons would violate the Pareto principle. Kaplow & Shavell, *Policy Assessment*, *supra* note __. Clearly, *state-r* can be compared to *state-f* only if the redistribution of the total welfare gain (from *state-f* to *state-w*) is costless (as in the proof), or more generally, if the per capita welfare cost of redistribution is less than the per capita welfare gain.

[34] *See infra* notes __ and accompanying text (specifying the substantive content of the agreement reached by the parties). [Part IV.C]

[35] Coase, *supra* note __ (showing that any allocation of entitlements does not block efficient outcomes in a world without transaction costs).

[36] According to the First Fundamental Theorem of Welfare Economics, an allocatively efficient outcome is also Pareto efficient. HAL R. VARIAN, MICROECONOMIC ANALYSIS 326 (3d ed. 1992). For the intuition behind the result, see *infra* notes __ and accompanying text. [Part III.A]

[37] RESTATEMENT OF THE LAW, TORTS: APPORTIONMENT OF LIABILITY § 2 (2000).

[38] RIPSTEIN, *supra* note __, at 202. *See also* WEINRIB, PRIVATE LAW, *supra* note __, at 169 n. 53 (explaining why voluntary assumption of risk is part of the juridical conception of corrective justice); *id*. at 136-40 (explaining why the principle of corrective justice supports the enforcement of contractual obligations); RUSSELL HARDIN, MORALITY WITHIN THE LIMITS OF REASON 109 (1988)("it is obvious that among the most important of all rights in the liberal canon are the right of exchange and the correlative right of contract").

Such a fair entitlement permits the right-holder to assume the risk for reasons of autonomy. An individual's fully informed, voluntary choice to assume a risk expresses her agency and allows her to pursue the life plan of her choosing. Any tort rule that blocked such choices would undermine the right-holder's agency and disregard the responsibility attaching to the choices one makes. The tort doctrine of assumption of risk, therefore, is substantively compatible with the ideal of autonomy and individual responsibility, the justification for the individual right to physical security finding protection in the fair tort rule.

As a matter of consistency, an autonomy-based tort right must permit the right-holder to assume the risk. The ability of the right-holder to exercise or waive her right by assuming the risk, in turn, implies that a fair tort rule cannot conflict with the Pareto principle under conditions of no transaction costs.

This conclusion remains valid for contexts in which transaction costs make redistributions prohibitively costly. As before, suppose the principle of fairness specifies some initial entitlement for pedestrians that does not minimize costs and is not allocatively efficient. Contracting between pedestrians and drivers is now prohibitively costly, so drivers will be unable to the gain the agreement of pedestrians to exercise or waive their rights whenever it would be allocatively efficient to do so. The fair entitlement yields allocatively inefficient outcomes. Would the fair rule now violate the Pareto principle? Any shift from the fair rule to the cost-minimizing tort rule would make some pedestrians worse off.[39] These individuals cannot be adequately compensated for the change in tort rules given that contracting and other forms of redistribution are prohibitively costly. Each pedestrian would not prefer the cost-minimizing tort rule over the fair tort rule. The fair tort rule does not make everyone worse off as compared to the cost-minimizing rule, so the Pareto principle is not violated by the fair tort rule in these circumstances.

Whether the context is one of feasible or infeasible redistributions, the fair tort rule does not violate the Pareto principle. Tort law thus provides important support for Howard Chang's more general claim that the Pareto principle is not violated by liberal, rights-based legal rules due to the ability of individuals to exercise or waive their rights when it is in their interest to do so.[40] Chang argues that Kaplow and Shavell make an assumption about continuity that is not valid for these rights-based rules, rendering invalid the proof with respect to such rules. Chang's argument has been rejected by Kaplow and Shavell for reasons that seem compelling.[41] The disagreement, however, has been framed in terms that do not adequately explain why rights-based tort rules do not violate the Pareto principle. Once those reasons have been clearly identified, it becomes easy to see why the Kaplow and Shavell proof relies upon assumptions that are not applicable to all rights-based tort rules, and why the proof does not establish a necessary violation between any rights-based tort rule and the Pareto principle.

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[39] In the event all pedestrians are identical in the relevant respects, the context effectively involves costless redistributions and is governed by that analysis.

[40] Chang, *supra* note __.

[41] Louis Kaplow & Steven Shavell, *Notions of Fairness Versus the Pareto Principle: On the Role of Logical Consistency*, 110 YALE L. J. 237, 243 (2000)[hereinafter "Consistency"]. Kaplow and Shavell have subsequently elaborated their response without changing its substance. *See* Louis Kaplow & Steven Shavell, *Fairness versus Welfare: Notes on the Pareto Principle, Preferences, and Distributive Justice*, 32 J. LEGAL STUD. 331, 342-51 (2003) [hereinafter "Notes"].

The proof assumes that in the evaluation of legal rules, the principle of fairness is given a constant, significant weight that is independent of welfare. The proof also assumes that the (constantly weighted) principle of fairness can be continuously traded off against some component of welfare. The tradeoff between fairness and welfare means that there will be situations in which the choice of a fair rule comes at the expense of some positive welfare gain that would be created by an unfair rule. Because the principle of fairness has constant weight, the fairness of such a rule would be unaffected if the welfare gain created by the unfair rule could be costlessly redistributed to all members of society so as to make each person better off than they would be under the fair rule. In these circumstances, the fair rule violates the Pareto principle.

As Chang and others have pointed out, the continuity assumption entails important restrictions on the principle of fairness.[42] Suppose that in the evaluation of legal rules, the weight given to fairness depends on welfare considerations. Fairness now has a *variable* weight rather than a *constant* weight. The variable weight for fairness, in turn, creates the possibility that it has no weight for cases in which a rule would increase the welfare of all individuals. Such a principle of fairness is not continuous in any component of welfare (it ceases to have any weight whenever a legal rule would make everyone better off), nor does it violate the Pareto principle. The validity of the proof thus importantly depends on the continuity assumption.

According to Kaplow and Shavell, a principle of fairness that would produce this outcome is a "hybrid" theory that modifies the principle of fairness "by assuming it to be inapplicable whenever it would conflict with the Pareto principle."[43] A hybrid theory violates the continuity assumption, a violation Kaplow and Shavell find to be indefensible:

> [The continuity assumption] is one that we imagined would be endorsed by anyone who believed that a notion of fairness was worth taking seriously…. Formally, our argument only requires that the principle of fairness be continuous *in something*. (Hence, corrective justice should not be given infinitesimal weight with respect to administrative cost savings, trivial aesthetic pleasures, or the consumption of some good—in other words, to some factor that is unrelated to the notion of fairness.)[44]

The argument is compelling. If the concern for fairness vanishes whenever welfare can be distributed so as to make everyone better off, then "no matter how much unfairness is involved, it can be outweighed by the tiniest amount of administrative cost savings [shared per capita]."[45] Any theory that allows the fairness concern to become infinitesimally small under these conditions does not seem to be "worth taking seriously."

Kaplow and Shavell also point out that a hybrid theory of fairness lacks consistency:

> [S]uppose that there are three regimes, *A*, *B*, and *C*. Under a posited notion of fairness, *A* is perfectly fair, *B* is moderately fair (say five individuals are treated somewhat unfairly), and *C* is significantly unfair (an additional ten individuals are treated quite unfairly). Under a pure version of the notion of fairness, the regimes would be ranked *A* best, *B* second, *C* worst. But now suppose that the

[42] Chang, *supra* note __; Richard A. Craswell, *Kaplow and Shavell on the Substance of Fairness*, 32 J. Legal Stud. 245, 249-57 (2003).
[43] Kaplow & Shavell, *Conflict*, *supra* note __, at 63, 72 n.20.
[44] Kaplow & Shavell, *Consistency*, *supra* note __, at 243.
[45] *Id*. at 242.

> welfare of every individual in regime *C* is somewhat greater than it is in regime *A* (because some other aspect of the regime sufficiently benefits those treated unfairly in *C*). Under the hybrid approach, one is therefore compelled to hold that regime *C* is definitely morally superior to *A*. The problem, however, is that the same hybrid theory insists that regime *A* is definitely morally superior to … regime *C*.[46]

A hybrid theory therefore poses troubling problems. By identifying them, Kaplow and Shavell have established serious problems that may inhere in the compensation-and-deterrence rationale for tort liability. According to this conception, tort law serves the "mixed" functions of compensation (a fairness concern) and deterrence (an economic concern).[47] Under a mixed conception, the two functions are conflicting and can be traded off against one another. Insofar as the weight given to fairness concerns is variable with respect to welfare concerns, this rationale for tort liability relies upon a hybrid theory. As Kaplow and Shavell persuasively argue, such a hybrid theory would seem to make the principle of fairness not "worth taking seriously" while also posing the problem of inconsistency.

A hybrid theory accordingly avoids the conflict with the Pareto principle as Chang and others have persuasively shown, but it depends upon a theory of fairness that is vulnerable to criticism as Kaplow and Shavell have shown. To be sure, one can defend hybrid theories and thereby leave the efficiency-versus-fairness issue open for further debate.[48] Such debate, however, is unnecessary for rights-based tort rules. These fair rules do not rely upon a hybrid theory of fairness, nor do they violate the Pareto principle as illustrated earlier.

Whereas a hybrid theory makes the importance or weight of fairness dependent on welfare, a pure rights-based principle of fairness can be *unvarying* with respect to welfare. The individual right to physical security cannot be compromised merely to promote social welfare.[49] A rights-based principle constrains the ability of the tort system to pursue social welfare. The constraint is constant and not modified by incremental changes in welfare. A rights-based principle of fairness therefore is not a hybrid theory that makes the value of fairness dependent on welfare.

By operating as a constraint, a rights-based principle does not conform to the assumptions in the Kaplow and Shavell proof. A constraint does not involve some positive weight that is independent of welfare, the type of fairness principle assumed by the proof. Rather, a constraint defines a condition under which improvements to welfare can be pursued. Moreover, a constraint need not be binding in each and every case (as clearly illustrated by the mathematics of constrained optimization), whereas the proof assumes that fairness has a constant weight across cases. Consequently, the fairness constraint is not necessarily binding for those cases in which the change in legal rules would make everyone better off. Such an outcome occurs for all rights-based tort rules that permit individuals to assume the risk. When all individuals exercise or waive their rights to promote their own welfare, the rights-based constraint is not binding and social welfare is advanced consistently with the Pareto principle. A rights-based principle therefore can constrain the ability of the tort system to pursue social welfare without violating the Pareto principle.

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[46] Kaplow & Shavell, *Notes*, *supra* note __ , at 346.
[47] *See* supra notes __ and accompanying text. [Intro.]
[48] *See* Craswell, *supra* note __, at 249-57.
[49] *See supra* notes __ and accompanying text. [Part I]

For these same reasons, the problems that Kaplow and Shavell attribute to hybrid theories are not applicable to all rights-based tort theories. The pedestrian assumes the risk because she receives adequate compensation in exchange. In principle, the compensation could be infinitesimally small (to assume an infinitesimal risk). In these circumstances, it looks like the principle of fairness is given infinitesimal weight with respect to a penny (a factor unrelated to corrective justice), but that appearance does not make the principle meaningless or logically inconsistent. As long as the payment induces the choice, the autonomy-based principle of fairness is satisfied and the constraint imposed by the individual right is not binding. The choice and not the size of the payment is the relevant normative concern.

A rights-based tort rule also does not permit an arbitrarily large amount of unfairness to be "outweighed by the tiniest amount of administrative cost savings [shared per capita]" as Kaplow and Shavell argue.[50] Presumably the unfairness to which they allude involves the behavior of the defendant. That is, as the defendant's conduct becomes more and more egregious, Kaplow and Shavell claim that the principle of fairness should become more important rather than less important. How, then, could the principle of fairness be satisfied by one penny when considered in relation to such morally egregious misconduct? The answer is that an autonomy-based principle of fairness is interested in the defendant's behavior only insofar as it affects the plaintiff's right to redress.[51] If the plaintiff exercises or waives her right, the defendant's behavior is irrelevant. There is no great "unfairness" that has been "outweighed" by the one penny that induced the consent.

Finally, a rights-based tort system does not suffer from the problem of inconsistency that would seem to plague a hybrid theory. If, as Kaplow and Shavell posit, regime *A* is perfectly "fair" and regime *C* satisfies the Pareto principle, then there may be no consistent method of reconciling the fairness concern with the welfare concern under a hybrid theory. The problem of inconsistency, though, does not arise under autonomy-based tort rules. For regime *A* to be perfectly fair, it must perfectly implement the principle of fairness. The ideal instantiation of autonomy involves situations in which everyone gives their fully informed consent to the choice in question. If individuals are given the opportunity to choose between regimes *A*, *B*, and *C*, everyone will choose *C* under conditions in which that regime makes everyone better off as compared to the alternative regimes. Hence regime *A* cannot be perfectly fair as a matter of autonomy, contrary to the condition posited by Kaplow and Shavell. There is no inconsistency between the normative desirability of regimes *A* and *C*. Inconsistency may plague a "mixed" conception of tort law that trades off fairness and welfare concerns, but such a hybrid theory does not justify all rights-based tort rules.

As a matter of logical consistency, any rights-based tort rule that finds justification in individual autonomy can permit an outcome that maximizes individual welfare. An individual who waives or exercises her tort right and assumes the risk by a fully informed voluntary choice is exercising her right to autonomy. That choice also maximizes individual welfare, eliminating any potential conflict between the rights-based principle of fairness and the Pareto principle. By failing to recognize how a concern for autonomy can justify welfare-maximizing outcomes, Kaplow and Shavell erroneously conclude that any plausible moral theory must satisfy the assumptions in their proof. That error, in turns, underlies their mistaken conclusion that all fair tort rules violate the Pareto principle.

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[50] Kaplow & Shavell, *Consistency*, *supra* note __, at 242.
[51] *See, e.g.*, WEINRIB, PRIVATE LAW, *supra* note __, at 155.

B. *The Pareto Principle and the Choice of Tort Rules*

The Pareto principle is not violated by all rights-based tort rules, nor is it violated by cost-minimizing tort rules. But insofar as it is a *principle* rather than a *rule* requiring choice based on unanimous consent, there must be normative content to the Pareto principle. That normative content can provide a reason for choosing between fair and cost-minimizing tort rules.

As Richard Posner has argued, the normative appeal of the Pareto principle lies in the connection between consent and autonomy.[52] A change actually consented to by all affected parties promotes their autonomy and is desired for that reason. So understood, the Pareto principle favors autonomy-based tort rules.

In a tort system based exclusively on cost minimization and welfarism, the total amount of individual welfare is the only relevant concern for purposes of policy evaluation.[53] The source of welfare is irrelevant. (Otherwise one could easily construct a social welfare function that satisfies the principle of corrective justice.[54]) All that matters is the maximization of social welfare, defined in terms of individual welfare rather than its components or sources. Autonomy and unanimity are irrelevant.

For example, suppose there are 100 individuals in a community that is considering two tort rules. *Rule-1* would make each person in the community better off by one unit of welfare, satisfying the Pareto principle. *Rule-2* would make 99 people better off by 1.10 units of welfare, while making one person worse off by 8 units of welfare. Suppose the social welfare function gives equal weight to each individual's welfare as per utilitarianism, the best known form of welfarism. The welfare-maximizing social planner will choose *Rule-2*, which has a total welfare gain of 100.9 units, whereas *Rule-1* has a total welfare gain of 100 units. The unanimous approval of *Rule-1* is irrelevant to the welfare-maximizing planner. Welfarism in general, like utilitarianism in particular, merely compares total welfare under the two rules and places no weight on the fact that one rule is unanimously approved whereas the other is not.

As a formal matter, the planner's disregard of unanimity does not violate the Pareto principle. The Pareto principle requires a pair-wise comparison of the status quo with a proposed

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[52] Richard A. Posner, *The Ethical and Political Basis of the Efficiency Norm in Common Law Adjudication*, 8 HOFSTRA L. REV. 487, 488-97 (1980). Posner used this interpretation of the Pareto principle to justify wealth maximization in a problematic manner. *See* Coleman, *Grounds of Welfare*, *supra* note __, at 1515-20. But Posner's claim that the Pareto principle has appeal insofar as actual consent expresses the Kantian ideal of autonomy can be defended.

Note also that the Pareto principle has appeal as the analytical device for choosing between social states without having to rely upon interpersonal comparisons of utility. *See* Part IV (describing this role of Pareto principle in welfare economics). But even though the Pareto principle has an important role to play in utilitarian theory, its normative content is hard to understood in those terms for reasons to be discussed in text. Moreover, welfare economists have not interpreted the Pareto principle as merely an instrument of utilitarianism. *See id.*

[53] *See* Amartya Sen, *On Weights and Measures: Informational Constraints in Social Welfare Analysis* in CHOICE, WELFARE AND MEASUREMENT 226, 248-51 (1982)(defining "welfarism" as the "general approach of making no use of any information about the social states other than that of the personal welfares generated in them").

[54] Geistfeld, *Positive Analysis*, *supra* note __, at 267-69 (explaining how a corrective-justice tort rule could be translated into social welfare function based on the source of individual utilities).

change. The principle does not apply to a comparison of *Rule-1* and *Rule-2* when evaluated from the perspective of the status quo, as in the example above. The pair-wise restriction of the Pareto principle makes it formally consistent with welfarism, because any change from the status quo satisfying the Pareto principle necessarily increases total welfare.

Despite the formal consistency between the Pareto principle and welfarism, the two are not substantively compatible. An exclusive focus on welfare excludes any consideration of the source of welfare. All that matters is whether total welfare has been increased or decreased. It is irrelevant whether the change in total welfare is brought about by actions that promote or undermine individual autonomy. By excluding consideration of autonomy or unanimity, welfarism effectively denies the normative appeal of the Pareto principle.

Hence the Pareto principle provides no compelling reason for choosing cost-minimizing tort rules. The consistency between the Pareto principle and cost-minimizing tort rules is only formal rather than substantive. Insofar as the normative appeal of the Pareto principle is based on individual autonomy, it obviously favors autonomy-based tort rules formulated in terms of the individual right to security.

III. Rights-Based Tort Rules and Welfare Economics

Like rights-based tort rules, many other policies do not violate the Pareto principle. When welfare economists are unable to choose among policies by reference to the Pareto principle, they analyze policies in terms of the equity-efficiency criterion. Rights-based tort rules satisfy this evaluative criterion as well, establishing the possibility of a fair tort system that satisfies the central tenets of welfare economics.

A. *The Efficiency-Equity Criterion*

Welfare economists evaluate distributive issues in terms of the efficiency-equity criterion. To understand adequately the rationale for this criterion and its implications for rights-based tort rules, a bit of history is helpful.

Traditional welfare economics of the late nineteenth and early twentieth centuries compared alternative situations by relying on the assumption that individual utilities can be measured (cardinal utility) and then compared across individuals. This decision rule selects utility-maximizing outcomes, making its normative justification dependant on utilitarianism.[55]

The need to make interpersonal utility comparisons troubled welfare economists. In the late 1930s, prominent economists rejected the utilitarian decision rule in favor of the new welfare economics, which posits that interpersonal utility comparisons are impossible or otherwise outside the scope of economic analysis. The new welfare economics compares alternative economic situations by relying on the Pareto principle.

The new welfare economics recognizes that few policies satisfy the Pareto principle, so it relies on potential Pareto improvements to compare alternative economic situations. This decision

[55] Amartya Sen, *The Possibility of Social Choice*, 89 AM. ECON. REV. 349, 351-52 (1999) (tracing origins of traditional welfare economics to influence of utilitarianism of Jeremy Bentham). The ensuing discussion of the new welfare economics draws on this source and on E.J. MISHAN, COST-BENEFIT ANALYSIS 301-14 (3d ed. 1982).

rule, widely known as the compensation or Kaldor-Hicks criterion, deems one state of the world to be better than another if those who would gain from the change could compensate the losers for their losses and still be no worse off than in the original state. The compensation criterion selects policies with benefits (the gains of the winners) in excess of costs (the losses of the losers) and forms the basis of cost-benefit analysis.

Any normative justification for cost-benefit analysis based exclusively on hypothetical compensation is troubling.[56] Consequently, economists maintain that welfare economics can defensibly ignore distributive questions only if the government can redistribute income via costless or lump-sum transfers between households.[57] A lump-sum transfer does not involve administrative or other costs and does not affect the behavior of anyone who pays or receives benefits. By relying on such transfers, the government can convert hypothetical compensation into real compensation, turning the potential Pareto improvement identified by cost-benefit analysis into an actual Pareto improvement. No one loses under a cost-benefit rule, and some people gain. Everyone presumably would consent to the rule, thereby satisfying the Pareto principle and giving welfare economics a broader normative appeal than the "old" welfare economics with its exclusive reliance on utilitarian forms of justification.

Today welfare economists no longer assume that questions of distribution can be separated from those of allocative efficiency. The "new" new welfare economics recognizes that the government often does not have the information required to make lump-sum tax redistributions: "It is this limitation on the information of the government which results in taxation being distortionary, and which gives rise to the trade-off between equity and efficiency."[58]

For example, suppose that principles of distributive justice require a redistribution from more able to less able individuals. To effectuate such transfers, the government must determine whether someone is of high or low ability. The government cannot rely on self-reporting, because anyone who says she is of high ability would be submitting voluntarily to a higher level of taxation used exclusively for the benefit of someone else. Everyone has an incentive to identify herself as being of low ability, so the government cannot observe costlessly whether someone is of high or low ability. To address this problem, the government must base the tax structure on observable characteristics having some relationship to individual ability. Typically the government relies on income measures as such a proxy. These measures are imperfect, as higher incomes can be associated with higher levels of ability, effort, or greater luck. Moreover, taxation based on income influences individual incentives to earn income. Efforts to distribute income from an allocatively efficient outcome are likely to distort individual behavior, yielding allocatively inefficient outcomes. Hence the tradeoff between equity and allocative efficiency.

Due to the linkage between issues of efficiency and fairness, welfare economists no longer evaluate transfer mechanisms, such as income taxes, solely in terms of allocative efficiency. According to the current welfare criterion, any given transfer is economically optimal if it is the least costly method of satisfying a given distributional need.[59] This criterion minimizes

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[56] I.M.D. Little, A CRITIQUE OF WELFARE ECONOMICS (2d ed. 1957).
[57] RICHARD W. TRESCH, PUBLIC FINANCE: A NORMATIVE THEORY 39 (1981); HAL R. VARIAN, MICROECONOMIC ANALYSIS 405 (3d ed. 1992).
[58] Joseph E. Stiglitz, *Pareto Efficient and Optimal Taxation and the New New Welfare Economics*, in 2 HANDBOOK OF PUBLIC ECONOMICS 991, 992 (Alan J. Auerbach & Martin Feldstein eds., 1987).
[59] TRESCH, *supra* note __, at 13-14.

the loss of allocative efficiency for any given distributive requirement, which is why it is often called, somewhat misleadingly, the efficiency-equity tradeoff.[60]

Any tort rule can be conceptualized as a transfer mechanism between the right-holder and duty-holder, which in turn poses the economic question of whether a fair tort rule satisfies the efficiency-equity criterion.

B. *Comparing the Tax and Tort Systems as Mechanisms for Attaining the Fair Distribution of Wealth*

As compared to a fair tort rule that is allocatively inefficient, overall social wealth would be increased by the cost-minimizing tort rule. That increased wealth can then be redistributed by the tax system in whatever manner is required by the principle of fairness. The total cost of this redistribution can then be compared to the cost of redistributing social wealth in a fair tort system. The system with the lowest total cost satisfies the efficiency-equity criterion, because that system attains the required distributional or equitable outcome in the most efficient manner.

For example, any system of distributive justice patterned on some simple static formula like "to each in equal shares" can create such a complementary role for cost-minimizing tort rules. A tort system that minimized the cost of accidental harms would maximize social wealth, thereby maximizing the amount to be fairly distributed by the tax system. The tax system could then determine the wealth of each individual in the community, much like it determines individual income, and then redistribute income via taxes and transfers to equalize wealth across the community. The lower total cost of this form of redistribution means that a fair tort rule fails to satisfy the efficiency-equity criterion.[61]

Principles of distributive justice based exclusively on individual wealth or welfare suffer from well-known problems. The fact of inequality matters, not its source or reason. By ignoring the source of individual inequalities in wealth or welfare, these principles of distributive justice disregard individual choices. At the end of the day, hard workers have no more money than couch potatoes.

To address this deficiency, philosophers have advocated principles of distributive justice allowing for inequalities created by individual choices. Once everyone has the same, just starting point, each can pursue her conception of the good life. Different pursuits typically generate different levels of individual wealth. Hence only certain types of inequalities should be

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[60] The term is misleading because it assumes that equitable advances necessarily come at the expense of efficiency. The general problem that makes lump-sum transfers impossible also may make it impossible to achieve allocatively efficient outcomes, creating the possibility that regulations can yield outcomes that are more efficient and equitable than unregulated outcomes. Louis Putterman, John E. Roemer & Joaquim Silvestre, *Does Egalitarianism Have a Future*?, 36 J. ECON. LITERATURE 861, 862-65 (1998).

[61] Whether this condition holds is a matter of some debate. *Compare* Louis Kaplow & Steven Shavell, *Should Legal Rules Favor the Poor? Clarifying the Role of Legal Rules and the Income Tax in Redistributing Income*, 29 J. LEGAL STUD. 821 (2000) (arguing that the tax system is presumptively superior to allocatively inefficient legal rules for redistributing income from rich to poor) *with* Chris William Sanchirico, *Taxes Versus Legal Rules as Instruments for Equity: A More Equitable View*, 29 J. LEGAL STUD. 797 (2000) (providing analytic reasons why allocatively inefficient legal rules may be less costly than tax transfers).

eliminated, depending on the source of the welfare in question. As Thomas Nagel puts it, "The essence of this moral conception is equality of *treatment* rather than impartial concern for well-being. It applies to inequalities generated by the social system, rather than to inequalities in general."[62] To use Ronald Dworkin's terminology, allowing for inequalities based on choice means that a distributive principle should be "endowment-insensitive" and "ambition-sensitive."[63] One's position in life should reflect ambitions and choices rather than the arbitrary circumstances of endowment beyond one's control.

The source of one's wealth or welfare thus matters for many liberal egalitarian principles of distributive justice.[64] Such conceptions of equality translate into a distributive principle that ought to resonate with economists: "Treating people with equal concern requires that people pay for the costs of their own choices."[65]

Once the appropriate distribution of social wealth depends on the choices made by individuals, cost-minimizing tort rules no longer complement the appropriate rules of taxation and transfer. The inequalities generated by accidental harms are best addressed by tort rules based on individual rights and responsibility.

Consider the following distribution of wealth that is deemed to be fair because the inequalities stem from individual choices and not endowments.

Pre-Accident Distribution of Wealth

Brad	Others	Mark
$2 million	$1 million	$110,000

Suppose Mark accidentally injures Brad while driving, causing Brad $50,000 of damages. Without a tort system, the accident would result in the following distribution of wealth:

Actual Post-Accident Distribution of Wealth

Brad	Others	Mark
$1.95 million	$1 million	$110,000

The $50,000 reduction in Brad's wealth occurs only because he had the misfortune of being injured in the crash. But what if that injury is Mark's responsibility, because Mark infringed upon Brad's right? In that event, the principle of fairness would deem Mark to be the "owner" of the injury costs, making him responsible for the compensation of Brad's injuries.[66] This

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[62] THOMAS NAGEL, EQUALITY AND PARTIALITY 106 (1991). Nagel identifies five sources of inequality that can be morally distinguished: discrimination; class; talent; effort; and luck. *Id*. at 103.

[63] Ronald Dworkin, *What is Equality? Part 2: Equality of Resources*, 10 PHIL. & PUB. AFF. 283, 311 (1981).

[64] *See generally* KYMLICKA, *supra* note __, at 40-41, 73-77 (surveying different theories of distributive justice).

[65] KYMLICKA, *supra* note __, at 75.

[66] *Cf.* Jules L. Coleman & Arthur Ripstein, *Mischief and Misfortune*, 41 MCGILL L. REV. 91 (1995)(arguing that the ownership of accident costs is a normative question). Although the example assumes an antecedently just distribution of wealth, that assumption is not critical. The initial distribution can be distributively unfair, requiring further distributions as a matter of distributive justice. Those distributions, however, are distinct from the $50,000 transfer between

compensatory obligation is not retributive and can be satisfied by consensual arrangements like insurance contracts. Assuming Mark has no insurance, the compensatory obligation would require the following distribution of wealth:

Fair Post-Accident Distribution of Wealth

Brad	Others	Mark
$2 million	$1 million	$60,000

The movement from the actual post-accident distribution of wealth to the fair distribution requires a transfer of $50,000 from Mark to Brad. How would the tax system decide to make this transfer? That determination requires the same inquiry that could be made by the tort system. All that matters is the risky interaction between Brad and Mark; the wealth held by Others is irrelevant. Brad and Mark are the two parties to the tort suit. By applying the relevant principle of responsibility, the tort system would determine that Mark is liable to Brad, creating an obligation to compensate Brad for his $50,000 injury. *A rights-based tort rule defines the appropriate transfer rule*.

Consequently, it makes no sense to separate the tort inquiry from the appropriate transfer inquiry, the type of separation that otherwise occurs when cost-minimizing tort rules complement another distributive mechanism like the tax system. A legal regime that first determined tort liability on grounds of cost minimization would then have to make a separate, costly determination for transfer purposes. That transfer would then yield the same outcome that could have been attained more directly by the fair tort rule, the transfer of $50,000 from Mark to Brad. Nothing is gained by the separate tort inquiry on cost minimization, because the parties would ignore that rule and instead make their decisions on safety and the like by reference to the final transfer rule.[67] The unnecessary tort inquiry concerning cost minimization would be wasteful.

Total costs would be reduced if the tort system directly implemented the appropriate transfer rule between Brad and Mark by basing liability on the fair tort rule. A fair tort system is thus the most cost-effective method of achieving the fair distribution of accident costs, so fair tort rules satisfy the efficiency-equity criterion.[68]

Mark and Brad required by corrective justice. On this view, corrective justice is "an independent moral principle [protecting the individual right to security] that operates within the context of distributive justice, but not as part of it." Perry, *supra* note __, at 247.

[67] The problem can be modeled as an extensive game in which the first stage involves care decisions; the second stage involves the risky interaction; the third stage involves the cost-minimizing tort suit; and the final stage involves the tax transfers. The concept of subgame perfect Nash equilibrium requires a strategy that is Nash equilibrium for the entire game and for every subgame (played at each stage to the end). *See* ERIC RASMUSSEN, GAMES & INFORMATION: AN INTRODUCTION TO GAME THEORY 91 (3d ed. 2001). This concept of rationality therefore requires each agent to consider any move by reference to the final stage. The care decisions in stage one therefore are made by reference to the final stage involving the tax transfers. In effect, each player "sees through" the intermediate stage of the cost-minimizing tort suit and instead considers the problem in terms of the ultimate tax transfers.

[68] For more extensive argument of this point, see Mark Geistfeld, *Reconciling Cost-Benefit Analysis With the Principle that Safety Matters More Than Money*, 76 N.Y.U. L. REV. 114, 155-58 (2001)[hereinafter "Safety Principle"].

IV. An Example of Economic Analysis in a Fair Theory of Tort Law

The analysis so far has shown that the two evaluative criteria of welfare economics—the Pareto principle and the efficiency-equity criterion—can be satisfied by a rights-based tort rule. Various conceptions of fairness can justify such right-based tort rules, including those that justify the individual right exclusively with deontological or nonconsequentialist reasoning.[69]

But does the Pareto principle and the efficiency-equity criterion exhaust the possibilities for economic analysis in a fair theory of tort law, or does economic analysis have other roles to play as well? The answer obviously depends on the particular conception of fairness, although there are good reasons for concluding that most, if not all, plausible fairness theories of tort law will importantly rely upon economic analysis.

To see why, it is useful to begin by specifying a particular conception of rights-based fairness that satisfies the analytic requirements of corrective justice. As this example shows, economic analysis can have an important role to play in a fair tort system. The analysis is not the conventional one of minimizing costs. Economic analysis instead identifies the fair distribution of welfare for risky interactions in which the only defensible method for protecting the individual right to physical security involves protection of the right-holder's welfare.

A. The Necessary Requirements of a Rights-Based Tort Rule

The principle of corrective justice "states that individuals who are responsible for the wrongful losses of others have a duty to repair those losses."[70] The relevant notion of responsibility, however, is not fully specified by the principle of corrective justice. As Jules Coleman explains:

> Corrective justice claims that when someone has wronged another to whom he owes a duty of care, he thereby incurs a duty of repair. This means that corrective justice is an account of the second-order duty of repair. *Someone* does not incur a second-order duty of repair unless he has failed to discharge some first-order duty. However, the relevant first-order duties are not themselves duties of corrective justice. Thus, while corrective justice presupposes some account of what the relevant first-order duties are, it does not pretend to provide an account of them.[71]

Because corrective justice "presupposes some account of the relevant first-order duties," Richard Posner has argued that a first-order duty of cost minimization would satisfy the principle of corrective justice.[72] This conception of the first-order duty, though, does not satisfy the analytic

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[69] Stephen Perry, for example, relies upon a deontological rationale for autonomy-based individual rights. *See* Perry, *Relationship*, *supra* note __; Stephen R. Perry, *Responsibility for Outcomes, Risk, and the Law of Torts* in PHILOSOPHY AND THE LAW OF TORTS, *supra* note __, at 72 [hereinafter "Outcome Responsibility"].

[70] COLEMAN, THE PRACTICE OF PRINCIPLE, *supra* note __, at 15.

[71] *Id.* at 32.

[72] RICHARD A. POSNER, THE ECONOMICS OF JUSTICE 73-74 (1983)("The Aristotelian concept of corrective justice is consistent with, and indeed required by, the wealth-maximization approach…. It prescribes rectification for wrongful acts that cause injury … but it does not define what acts are

requirements of corrective justice. A first-order duty to minimize costs is a form of distributive justice (maximization of social wealth or welfare) and not one of corrective justice. As an analytic matter, the principle of corrective justice requires a duty-right nexus not grounded upon a principle of distributive justice.[73]

This analytic requirement makes it possible to define further the types of first-order duties or conceptions of responsibility that are consistent with the principle of corrective justice. A rights-based tort rule gives the individual interest in physical security interpersonal priority over competing liberty interests in order to protect "our physical persons" from "a social distribution of any kind."[74] The interpersonal priority of the security interest accordingly derives from a principle of fairness distinct from a principle of distributive justice and its required social distributions. Prioritization of the security interest is thus a core feature of rights-based tort rules satisfying the principle of corrective justice, distinguishing those rules from ones of distributive justice.[75]

Priority of the security interest can be justified by individual autonomy. This justification can be nonconsequentialist or deontological; autonomy can merit protection due to the intrinsic worth of individuals rather than because of the consequences produced by such protection.[76]

An autonomy justification places further limits on the content of a rights-based tort rule. The principle of corrective justice entails a normative relationship of equality between the plaintiff and defendant: The right-holder is correlative to the duty-holder, a normative relationship that defines the plaintiff-defendant form of tort liability. To protect the autonomy of right-holders consistently with the requirement of equality, a rights-based tort rule must also respect the autonomy of duty-holders. After all, one's capacity to live a meaningful life importantly depends on liberty and economic resources. A rights-based tort rule accordingly prioritizes the individual interest in physical security while also recognizing the normative significance of the subordinate liberty and economic interests of the duty-holder. The priority must be relative. Unlike an absolute or lexical priority, a relative priority of interests allows for some balancing of the conflicting interpersonal interests. Without some type of balancing, a rights-based tort rule would impermissibly ignore and negate the subordinate liberty interests of duty-holders.

Another requirement of rights-based tort rules involves the type of liberty interests that are appropriately governed by the tort duty. Although corrective justice does not fully specify the first-order duties of tort law, there is consensus that it minimally requires voluntary actions (the tort requirement of feasance) creating foreseeable risks of harm to the rights holder.[77]

The minimal requirements of corrective justice therefore are few in number: (1) a rights-based tort rule requires a duty defined in terms of voluntarily acts creating foreseeable risks of

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wrongful…. So it is compatible with that concept to define an act of injustice as an act that reduces the wealth of society….").

[73] Corrective justice, in other words, is not a part of distributive justice, even though it necessarily operates within a scheme of distributive justice. *See supra* note __ [prior subsection].

[74] Perry, *supra* note __, at 239.

[75] The following analysis thus supports Coleman's conclusion that "there must … be certain paradigm cases of the relevant first-order duties if we are to be able to understand their enforcement by tort law as a matter of corrective justice." COLEMAN, PRACTICE OF PRINCIPLE, *supra* note __, at 34.

[76] *See supra* notes __ and accompanying text. [Part I].

[77] Weinrib, *Consensus*, *supra* note __, at 4.

harm to the right-holder, requirements grounded in the need to adequately respect the autonomy of duty-holders; (2) the first-order duty—the behavioral requirements of tort law—must give the security interest of the right-holder priority over the liberty interest of the duty-holder; and (3) the priority must be relative in order to adequately respect the autonomy of the duty-holder.

These requirements leave unanswered a difficult question. What does a relative priority of the security interests and liberty interests mean? Some corrective-justice theorists, including Jules Coleman and Ernest Weinrib, give the security interest of the right-holder priority only over *unreasonable* liberty interests of the duty-holder, a priority that limits tort liability (the second-order duty of repair) to harms caused by unreasonable conduct like negligence.[78] Other theorists, including George Fletcher and Stephen Perry, base the priority on the concept of reciprocity.[79] Another approach gives the security interest of the right-holder priority over all liberty interests of the duty-holder satisfying the requirements of foreseeability and feasance. As I've argued elsewhere, this approach yields a well-structured tort inquiry that adequately describes the important substantive doctrines of tort law, including the important limitations of liability.[80]

Not surprisingly, I will rely upon this latter priority of interests. Having previously shown how an interpersonal priority of the security interest can explain the important doctrines of tort law, my purpose here is to highlight the role of economic analysis in the inquiry. Indeed, an important analytic concept developed by law-and-economic scholars explains why such an interpersonal priority of the security interest is consistent with the principle of corrective justice.

A simple priority of the security interest over the liberty interest is clearly capable of justifying strict liability. The priority is not limited to unreasonable liberty interests, so a defendant who acted reasonably can have a duty to compensate the foreseeable harms suffered by the (prioritized) security interest of the plaintiff. Because it sanctions a role for strict liability, this priority of the plaintiff's security interest violates the principle of corrective justice in the view of Ernest Weinrib:

> Whereas corrective justice treats the litigants as equals, strict liability [centers itself] on only one of the parties—the … plaintiff…. The inequality in strict liability emerges from the principle that the defendant is to be liable for any penetration of the plaintiff's space. *What is decisive for the parties' relationship is the demarcation of the domain within which the law grants the plaintiff immunity from the effects of the actions of others; the activity of the defendant is then restricted to whatever falls outside this sphere*. Thus the interests of the plaintiff unilaterally determine the contours of what is supposed to be a bilateral relationship of equals.[81]

As the italicized language reveals, Weinrib conceptualizes strict liability as a "property rule." The concept of a property rule, initially developed in a classic article by Guido Calabresi and Douglas Melamed, entails a subjective valuation by the right-holder coupled with the ability

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[78] *See, e.g.*, Coleman & Ripstein, *supra* note __; WEINRIB, PRIVATE LAW, *supra* note __.
[79] *See* George P. Fletcher, *Fairness and Utility in Tort Theory*, 85 HARV. L. REV. 537, 547 (1972); Perry, *Outcome Responsibility*, *supra* note __.
[80] Mark Geistfeld, *Negligence, Compensation, and the Coherence of Tort Law*, 91 GEO. L.J. 585 (2003) [hereinafter "Compensation"].
[81] WEINRIB, PRIVATE LAW, *supra* note __, at 177 (italics added and paragraph structure omitted).

to enforce the right by specific performance.[82] If strict liability were a property rule, then a right-holder could restrict the activity of a duty-holder (via injunctive relief) to those activities that could not harm the right-holder. A pedestrian could prevent another from driving, for example, or else waive the right in exchange for money. The right is protected by the subjective valuation of the right-holder, so the pedestrian could extract from the driver virtually all of the surplus or benefit of driving. In this manner, "the interests of the plaintiff unilaterally determine the contours of what is supposed to be a bilateral relationship of equals," thereby violating the requirement of equality inherent in the principle of corrective justice.

Clearly such a rule of strict liability is problematic, as it would seem to effectively eliminate all nonconsensual risks in society or otherwise reduce the benefits from a large range of important activities like driving. But strict liability need not function in this way. It can be a "liability rule" in the Calabresi and Melamed framework, one requiring those who take or violate the entitlement to pay a price fixed by the courts.[83]

As a liability rule, strict liability does not require consent of the right-holder and accordingly permits nonconsensual risky interactions like those between drivers and pedestrians. Injunctive relief ordinarily is not available. Instead, strict liability merely requires the driver as duty-holder to pay the pedestrian right-holder for injuries to the interest protected by the right. Liability takes the form of a damages award determined by the court. The damages award does not extract from the driver all of the benefits from driving, but only compensates the pedestrian for the injuries to the interests protected by the right. The interests of the plaintiff therefore do not "unilaterally determine the contours of what is supposed to be a bilateral relationship of equals" as Weinrib claims. Those contours are determined by the court via its determination of damages and other limitations of liability. Strictly liable individuals are free to drive and impose nonconsensual risks on others, subject only to the duty that they compensate those physical injuries foreseeably caused by the driving.

Hence the distinction between property rules and liability rules, an important concept in law-and-economics scholarship, helps to explain why strict liability need not violate the requirement of equality entailed by corrective justice. Economic analysis has other important roles to play in a fair theory.

B. The Fairness Inquiry

In determining tort rules for nonconsensual risks, the principle of fairness gives the security interest of the right-holder priority over those liberty interests of the duty-holder satisfying the requirements of foreseeability and feasance. Assuming these conditions are satisfied, must any nonconsensual risk be permitted? Clearly not. A principle of fairness depends on the relevant conception of equality.[84] A fair tort system therefore necessarily bars risky interactions in which one party fails to treat the other with equal respect. An example presumably includes the sadist who forcibly harms another without consent. Prohibition of certain activities need not violate the principle of equality, even though such prohibition negates or ignores certain liberty interests of the duty-holder.

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[82] Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089, 1092 (1972).
[83] *Id*.
[84] *See generally* KYMLICKA, *supra* note __ (explaining how different conceptions of equality underlie different theories of justice).

This aspect of the tort inquiry accordingly asks whether the liberty interest in question deserves to be recognized or protected by tort law. The tort system already evaluates liberty interests objectively in terms of "the value which the law attaches to the conduct" rather than the actor's subjective valuation of the interest.[85] Here the fairness inquiry can derive adequate guidance from the criminal law. Criminal conduct does not involve the type of liberty interest that has been or should be protected by tort law.[86] Noncriminal behavior is normatively acceptable as long as such behavior is conducted in a reasonable manner. The fairness inquiry for such behavior therefore addresses the standard of reasonable care rather than the objective valuation of interests.

The standard of care specifies the first-order duties or behavioral requirements of tort law by mediating or balancing the individual interests implicated in the risky interaction. Fair tort rules mediate these conflicting interpersonal interests by giving the security interest relative priority over the liberty interest. At this point the fairness inquiry faces hard questions. What does the priority of interests imply for the standard of care? For the choice between negligence and strict liability?

These important questions can be answered with economic analysis. For normatively acceptable risky activities, the issue of fairness reduces to consideration of how the tort rule affects the welfare levels of the two parties. The activity of driving, for example, should be permitted, so the fairness inquiry must determine how safely one should drive and what obligations should arise in the event of injury. These issues must be resolved in the manner required by the right, and the best protection of the pedestrian's autonomy must reside in protecting her welfare. That is the only remaining factor for protecting or recognizing the pedestrian's individual right to security. The way in which tort rules affect individual welfare, in turn, poses a question answerable by economic analysis.

The fairness inquiry therefore ultimately requires a consideration of welfare levels, at which point it can be informed by economic analysis. The economic analysis is not one of cost minimization. Rather, the analysis strives to identify liability rules that would adequately satisfy the requirement of equality with respect to welfare. The objective is to determine liability rules that would adequately maintain the welfare levels of right-holders without overly burdening the welfare or liberty interests of duty-holders. Such liability rules would reflect the relative priority of interests required by the principle of corrective justice.

C. Distributive Economic Analysis

Distributive economic analysis models the fairness problem as a hypothetical transaction between the two parties to the risky interaction.[87] The priority of security over liberty determines the seller and buyer. The seller is the right-holder or potential victim—someone like a pedestrian

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[85] RESTATEMENT (SECOND) OF TORTS § 283 cmt. e.

[86] Originally, tort damages were awarded as an incident of criminal prosecution, and the linkage of criminal and tort liability meant that the early common-law courts "approach[ed] the field of tort through the field of crime." FREDRICK POLLACK & FREDERICK MAITLAND, II THE HISTORY OF ENGLISH LAW 530 (Cambridge Univ. Press, 2d ed. 1968) (1898). Tort actions continued to be quasi-criminal until the late seventeenth century. PROSSER AND KEETON ON TORTS, *supra* note __, at 8.

[87] For more detailed specification, see Geistfeld, *Safety Principle*, *supra* note __; Geistfeld, *Compensation*, *supra* note __.

facing a threat to her physical security. The buyer is the duty-holder or potential injurer—someone like a driver whose exercise of liberty threatens the other's security interest. To assume the risk, the right-holder as seller must receive compensation from the duty-holder as buyer of the right. The compensation ensures that the ex ante welfare level of the right-holder is not reduced by the risky interaction. So too, the compensatory obligation does not unfairly diminish the duty-holder's welfare. The duty-holder always has the choice to forego the risky activity and avoid the associated tort obligations. The duty-holder would choose to engage in the risky activity only if doing so creates a benefit sufficient to offset the cost of the tort duty. The duty therefore would not reduce the ex ante welfare level of the duty-holder relative to a world in which the risky interaction does not occur.

To illustrate, suppose an automobile accident will always kill the pedestrian. Suppose further that the amount of care exercised by the driver is continuous in the probability of accident, so that incrementally greater care incrementally reduces the probability of the fatal accident. Let *B* denote the total cost or burden of care incurred by the driver. For any given probability of suffering the fatal injury, the cost of the risk is determined by the pedestrian's willingness to accept money in exchange for facing the risk. This amount makes the pedestrian indifferent between (1) the state of the world in which the pedestrian does not face the risk and consequently receives no money, and (2) the state of the world in which the pedestrian faces the risk and receives payment for doing so. That payment, which is defined as the willingness-to-accept or WTA risk measure, is the monetary benefit that exactly offsets the cost of the risk for the pedestrian. The WTA measure thus defines the cost of the risk for the pedestrian in terms of the minimum monetary benefit the pedestrian must receive to assume the risk.

In a consensual exchange between the two parties, the driver as duty-holder must compensate the pedestrian as right-holder for any risks faced by the pedestrian. The appropriate compensation is determined by the WTA measure, which in turn depends on the probability of injury. The pedestrian would not accept any money to face the certainty of a fatal accident (the WTA measure equals infinity), although she would accept some finite payment to face lower level risks.[88] The driver therefore can reduce the total WTA payment by reducing the risk. The driver's total cost—the cost of precaution and the WTA payment—is minimized if the driver agrees to take precautions costing less than the associated reduction in the WTA measure. This amount of precaution *B** minimizes accident costs and is allocatively efficient. At the efficient level of care, the pedestrian still faces a positive probability of being killed in an accident and requires compensation WTA* in exchange for facing that risk. In the consensual compensatory exchange, then, the driver incurs safety precautions costing *B** and pays WTA* as compensation to the pedestrian for agreeing to face the residual risk. These total costs for the driver must be less than the total benefits the driver would gain from the risky interaction, for otherwise the driver would forego the interaction and avoid incurring the more costly tort obligations.

This compensatory agreement is hypothetical and does not fully specify the appropriate content of tort rules. It defines an ideal welfare outcome that ordinarily is not attainable. The parties typically do not transact, and so the pedestrian usually does not receive the WTA payment from the driver. By assumption, an accident would kill the pedestrian, eliminating the possibility that she could receive those proceeds as a damages remedy.

[88] For more formal specification, see Geistfeld, *Safety Principle*, *supra* note __, at 188-89.

Tort law protects individuals against "physical harm," which includes "physical illness, disease, and death."[89] Nevertheless, a defendant does not pay damages compensation for a decedent's loss of life's pleasures.[90] Such an injury is comprehensible only from the perspective of the living.[91] The tort obligation is owed to a deceased accident victim, and tort damages cannot compensate a dead person for the lost pleasures of living. Fatal accidents starkly illustrate the limited compensatory capabilities of a damages remedy, but the problem is more general. Tort damages do not realistically "make whole" the serious physical disabilities of accident victims.

In light of the limitations of the damages remedy, a fair tort system faces a difficult problem. How can tort law protect the individual right to security with respect to premature death and serious bodily injury, particularly for cases in which that right can be protected only in terms of welfare?

An answer can be derived by considering how tort rules affect the distribution of welfare between the right-holder and duty-holder. The ideal distribution of welfare can be defined by reference to the hypothetical transaction between the driver and pedestrian. In that transaction, the driver incurs total tort obligations equal to the burden of precautions *B* and the compensatory payment for residual risks captured by the WTA payment. Although the driver cannot pay the WTA amount to the pedestrian via a consensual exchange or in the form of tort damages for the fatal accident, the standard of care can be formulated so that the driver makes the WTA payment in the form of safety precautions. A negligence standard requiring the driver to take precautions costing ($B^* + WTA^*$) imposes the same total burden on the driver as the consensual compensatory exchange. As compared to the cost-benefit standard of care, the more exacting liability standard reduces risk.[92] The risk reduction directly protects the security interest and increases the welfare

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[89] Restatement (Third) of Torts: Liability for Physical Harm (Basic Principles) § 4 (Tentative Draft No. 1, 2001).

[90] *See* Andrew J. McClurg, *It's a Wonderful Life: The Case for Hedonic Damages in Wrongful Death Cases*, 66 NOTRE DAME L. REV. 57, 62-67 (1990).

[91] *See* THOMAS NAGEL, MORTAL QUESTIONS 1-10 (1979).

[92] Contrary to a common understanding of the issue, a negligence standard can reduce risk below the cost-benefit amount. According to that understanding, a negligence rule requiring more than the cost-benefit amount of care is no different than strict liability. Under strict liability, potential injurers like drivers choose the cost-benefit amount of care, as care beyond that point will cost more than the expected reduction in liability costs. By this same reasoning, if the negligence standard requires more than the cost-benefit amount of care, potential injurers will choose to be negligent, as the expected liability costs are less than the cost of the required care in excess of the cost-benefit amount. Potential injurers therefore treat such a negligence standard no differently than a rule of strict liability. Despite this logic, negligence liability is not equivalent to strict liability. A negligence standard requiring more than the cost-benefit amount of care can reduce risk below the cost-benefit amount that would obtain under strict liability.

Most obviously, a negligence standard can be equivalent to strict liability only if potential injurers make decisions entirely with a cost-benefit calculus, only following the law when it is in their self-interest to do so. Insofar as potential injurers care about following the law, they will adhere to a more exacting negligence standard, even if in some cases it would be cheaper for them to forego a required precaution and risk liability.

Even if potential injurers are self-interested and make safety decisions entirely on a cost-benefit calculus, they will adopt cost-benefit precautions and choose to be negligent only if their liability is limited to those injuries caused by the unreasonable risk as opposed to the total risk created by the conduct in question. *See* ROBERT COOTER & THOMAS ULEN, LAW AND ECONOMICS

of the pedestrian by making it less likely that she will be killed. This negligence standard more closely approximates the distribution of welfare that would obtain under conditions of consensual compensation, thereby attaining a more fair distribution of welfare.

A problem still remains. Although the negligence standard can be precisely defined to ensure that duty-holders incur the same total burdens they would otherwise incur in a perfectly compensatory regime, that standard does not fully protect the welfare of right-holders. The pedestrian still faces some chance of being killed in a car crash. Due to this prospect, nonconsensual fatal risks make pedestrians and other right-holders worse off than they would be in a world without the risk. The tort rule is not perfectly compensatory for right-holders with respect to the most important security interests protected by the right—the interests in being secure from premature death and severe physical injury.

The amount of undercompensation depends on the amount of nonconsensual risk permitted by the tort system. How much undercompensation is fair—that is, how much nonconsensual risk should be permitted by the negligence standard—therefore is a distributive problem between right-holders and duty-holders. Understood in that light, it becomes apparent why the tort system defines the negligence standard in general terms and lets the jury determine its content on a case-by-case basis, even when the facts are not in dispute.[93] A generalized

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270-75 (2d ed. 1997); Marcel Kahan, *Causation and Incentives to Take Care Under the Negligence Rule*, 18 J. LEGAL STUD. 427 (1989). However, courts confronting evidentiary problems are unlikely to limit liability to the unreasonable risks, which is likely to be a general phenomenon. *See* Stephen Marks, *Discontinuities, Causation, and Grady's Uncertainty Theorem*, 23 J. LEGAL STUD. 287 (1994); *see also* DAN B. DOBBS, THE LAW OF TORTS § 173, at pp. 420-21 (2000) (stating that courts are "avowedly liberal" with causation issues "if the defendant's conduct is deemed to be negligent for the very reason that it creates a core risk of the kind of harm suffered by the plaintiff"); Zuchowicz v. United States, 140 F.3d 381, 390 (2d Cir. 1998) (holding that causation can be established if "(a) a negligent act was deemed wrongful *because* that act increased the chances that a particular type of accident would occur, and (b) a mishap of that very sort did happen") (Calabresi, J.). Once a defendant is liable for all injuries caused by its conduct rather than merely those injuries caused by its *negligent* conduct, it has sufficient incentive to avoid liability altogether by adhering to the standard of care in excess of the cost-benefit amount. *See* COOTER & ULEN, *supra*.

Finally, damages importantly differentiate negligence liability from strict liability. For otherwise identical cases, jurors are more likely to award higher damages for negligence liability than strict liability, creating another deterrence advantage for negligence liability. *See* Richard L. Cupp & Danielle Polage, *The Rhetoric of Strict Products Liability versus Negligence: An Empirical Analysis*, 77 N.Y.U. L. REV. 874, 936-37 (2002) (summarizing empirical study finding higher pain-and-suffering awards when jury instructions are framed in terms of negligence rather than strict liability). And for negligence cases in which the defendant consciously chooses to violate the standard of reasonable care, punitive damages are available. *See*, *e.g.*, DOBBS, supra, § 381, p. 1065 ("A deliberate policy of corporate misconduct may suffice" for punitive damages). The threat of punitive damages, in turn, can give potential injurers the incentive to adhere to a negligence standard requiring care in excess of the cost-benefit amount. *Id*. at 1063 ("Courts usually emphasize that punitive damages are awarded to punish or deter …. The idea of deterrence … is that a sufficient sum should be extracted from the defendant to make repetition of the misconduct unlikely.").

[93] Most commonly, jury instructions first define negligence as the failure to exercise ordinary care, and then define ordinary care in terms of the conduct of the reasonably careful or reasonably

negligence standard gives juries latitude to resolve a distributive problem that has no obviously correct answer even when the facts are not in dispute, and there are good reasons for concluding that jurors are likely to base their decision on community norms and the other factors most relevant to the distributive problem.[94]

A rights-based principle of fairness, complemented by distributive economic analysis, therefore is capable of explaining and specifying the standard of care. A rights-based principle of fairness can also determine the duty limitations of negligence liability. Duty is limited by the requirements of feasance and foreseeability, two limits imposed by the principle of corrective justice.[95] The remaining limits follow from the priority of the security interest over other types of conflicting interpersonal interests.

Imposing liability on a negligent defendant for all foreseeable harms would predictably bankrupt defendants in most cases, leaving the defendant unable to fully compensate the physically injured victims. To help ensure that physical injuries are adequately compensated, tort law relies on a categorical rule that limits the duty of negligent defendants to exclude stand-alone emotional harms and economic losses, subject to a few exceptions involving a small number of claimants.[96] The various rules limiting duty can thus be justified as a means of adequately protecting the welfare of physically injured accident victims, protection justified by the priority of the security interest.[97]

This welfare-based inquiry emphasizes the role of compensation in tort law as per the corrective-justice emphasis on the duty of repair. The inquiry also shares important similarities with the conventional economic analysis of tort law. Compensation ordinarily is not relevant for the minimization of costs, but that analysis contemplates a compensatory exchange between the buyer (duty-holder) and seller (right-holder) without actually requiring it.[98] Consideration of

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prudent person. *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, 622 (2002). Even if no fact is in doubt, the jury decides on the reasonableness of the defendant's conduct. Mark P. Gergen, *The Jury's Role in Deciding Normative Issues in the American Common Law*, 68 FORDHAM L. REV. 407, 432 n.121 (1999).

[94] *See* Geistfeld, *Safety Principle*, *supra* note __, at 166-68 (identifying factors relevant to distributive problem and arguing, with support from empirical studies, that jurors are likely to apply the reasonable-person negligence standard in the distributively appropriate manner); Steven P. Hetcher, *The Jury's Out: Social Norms' Misunderstood Role in Negligence Law*, 91 GEO. L. J. 633 (2003) (arguing that community norms are largely relied upon by jurors in applying the reasonable-person negligence standard).

[95] *E.g.*, RESTATEMENT (SECOND) OF TORTS § 314 (1965) (no duty for mere failure to act); § 289 cmt. b (relevant act must "involve a risk which the actor realizes or should realize").

[96] *See* DAN B. DOBBS, THE LAW OF TORTS § 308 (2000) (describing duty limitations for emotional harms); § 452 (describing duty limitations for economic loss).

[97] *See generally* Mark Geistfeld, *The Analytics of Duty: Medical Monitoring and Related Forms of Economic Loss*, 88 VA. L. REV. 1921 (2002) (showing how duty limitations based on the type of harm are best understood in terms of the priority of the security interest over other interests).

[98] In the driver-pedestrian exchange, the cost of the risk is determined by the amount of money the pedestrian would be willing to accept in exchange for facing the risk (the WTA measure). The WTA measure necessarily contemplates an exchange in which the potential victim receives compensation for the risk exposure. Without any such exchange, the WTA measure collapses into the risk measure based on the potential victim's willingness-to-pay to eliminate the risk. Geistfeld,

compensatory concerns therefore does not make this aspect of the fairness inquiry fundamentally different than the cost-minimizing tort inquiry.

The inquiry also conforms to the widely held view that the purpose of tort law involves the functions of compensation and deterrence. The compensation-and-deterrence rationale is adopted by the *Restatement (Third) of Torts*, which justifies negligence liability as a remedy for wrongful behavior and as a deterrent to such behavior.[99] Some scholars have forcefully argued that this rationale is incoherent.[100] The incorporation of economic analysis into the fairness inquiry shows otherwise. An important aspect of compensation in a negligence regime involves the reduction of risk, making the compensatory function of tort law dependent on the deterrence function. Each function is necessary if tort rules are to protect adequately the individual right to physical security in a fair tort system. A unified conception of tort law therefore can be derived once economic analysis is incorporated into a fair theory of tort law.

V. The Importance of Distributive Economic Analysis

Economic analysis has an important role to play in a rights-based tort system that gives the security interest interpersonal priority over the liberty interest. But perhaps such a role for economic analysis is peculiar to this conception of fairness. Such a priority of interests yields a compensatory conception of tort law, as it justifies a duty for the subordinate liberty interest to compensate injuries suffered by the legally superior security interest. Compensatory concerns directly implicate welfare concerns, thereby creating a role for distributive economic analysis. Other rights-based principles may not give any importance to welfare concerns. A consequentialist rationale for tort law gives primary and perhaps exclusive importance to the welfare effects produced by tort rules, so any nonconsequentialist or deontological rationale for tort law will not justify tort rules in welfare terms. Such fair theories of tort law need not have any consequentialist component, eliminating any significant role for welfare considerations and economic analysis.[101]

Nevertheless, there are good reasons for concluding that welfare matters for any rights-based tort system, not merely one based on a compensatory conception of tort liability. Consider the views of Ernest Weinrib, who has formulated a Kantian view of corrective justice that "rules out … economic analysis."[102] Weinrib states that under his conception of corrective justice, "[w]elfare serves only the secondary function of concretizing rights and making them quantifiable in particular cases. The reason that rights matter for tort law lies elsewhere."[103] This "secondary" function is quite important. By "concretizing rights and making them quantifiable in particular cases," welfare serves an important role of eliminating vagueness in the formulation of fair tort rules.

Safety Principle, *supra* note __, at 189. Risks that are appropriately measured in terms of the WTA measure accordingly involve a transactional analysis that contemplate the type of exchange required as a matter of fairness.

[99] *See supra* note __ and accompanying text. [Introduction]

[100] *See supra* note __ and accompanying text. [Introduction]

[101] *See, e.g.*, Gerald J. Postema, *Introduction: Search for an Explanatory Theory of Tort Law* in PHILOSOPHY AND THE LAW OF TORTS, *supra* note __, at 1, 18 (suggesting that corrective-justice theories "which resolutely insist on a non-consequentialist understanding of the aims they propose for the tort system" do not "have a substantial consequentialist component").

[102] WEINRIB, PRIVATE LAW, *supra* note __, 132.

[103] Weinrib, *Consensus*, *supra* note __, at 14.

The vagueness of corrective-justice tort rules has long been a complaint of lawyer economists, including those without normative commitments to wealth maximization or welfarism.[104] As Gary Schwartz observed a few years ago, "in any number of private encounters I've had with economically minded scholars, I have heard them dismiss corrective justice writings as out of date, empirically unverifiable, and inherently 'mush.'"[105] Schwartz concludes that economists are unable to appreciate the principle of corrective justice, but economists rightly worry about mushy rules for a reason that ought to be acceptable to the proponents of corrective justice.

Insofar as corrective-justice tort rules are overly vague, the indeterminacy threatens individual autonomy. As a matter of equality, the principle of corrective justice is concerned about the autonomy of both the right-holder and duty-holder. Overly vague tort rules threaten the autonomy of duty-holders by subjecting them to indeterminate liability, undermining their ability to pursue their conception of the good life. Overly vague rules can violate the principle of corrective justice.

The problem of vagueness in a fair tort system becomes manageable once welfare considerations are incorporated into the fairness inquiry. Consider again the interaction between the driver and pedestrian that would kill the pedestrian in the event of an accident. Driving is a normatively acceptable activity, so the activity cannot be prohibited. In the event of accident, however, the pedestrian cannot be compensated by tort damages. What does it mean to have a right to physical security in such a case? The only possible way to protect the pedestrian's right involves the fair protection of her welfare. The fairness inquiry will need to rely upon welfare concerns, which in turn makes it possible to "concretize" the right in terms of the fair distribution of welfare. Such a concrete right translates into a well-defined first-order duty of care, eliminating the problem of indeterminacy that could otherwise violate the principle of corrective justice.

Welfare considerations necessarily have a "secondary" status in many fair theories of tort law, but such a role is likely to serve the important function of eliminating vagueness and otherwise clarifying issues. This conclusion finds further support in the helpful role played by the distributive economic analysis of reciprocity and nonmonetary damages, two controversial and important concepts in tort law.

A. *Reciprocity*

Reciprocity involves risky interactions in which each party threatens physical injury to the other. Two drivers, for example, simultaneously impose a risk of physical injury on one another, with each facing the risk of being physically injured by the other. In the extreme case of perfect reciprocity, the interacting individuals are identical in all relevant respects, including the degree of risk that each imposes on the other, the severity of injury threatened by the risk, and the liberty interests advanced by the risky behavior.

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[104] *Cf.* Kornhauser, *Preference*, *supra* note __, at 305 n.3 (rejecting the Kaplow and Shavell claim regarding the appropriateness of resolving all legal question in terms of individual welfare preferences, but finding "broad agreement with their dissatisfaction with the imprecision and poor specification of these [fairness] claims").

[105] Schwartz, *supra* note 1, at 1808.

In a highly influential account of reciprocity, George Fletcher argued that reciprocal risks should be governed by negligence, because "a rule of strict liability does no more than substitute one form of risk for another—the risk of liability for the risk of personal loss"[106] Nonreciprocal risks, by contrast, involve an inequality between the two parties and are appropriately governed by strict liability. Other fairness theorists agree that the reciprocity of risk determines the choice between negligence and strict liability.[107]

So described, the reciprocity rationale for negligence liability is incomplete. The rationale assumes that strict liability would inappropriately substitute one form of reciprocal risk for another, whereas one instead can assume that negligence liability would inappropriately substitute one form of reciprocal risk for another. Negligence liability, more precisely, involves substituting the reciprocal risk of personal loss for the reciprocal risk of liability that otherwise would obtain under strict liability. Why is this substitution any more or less appropriate than the substitution that would be effected by strict liability? The question must be answered by reference to the appropriate background rule, but reciprocity does not justify negligence or strict liability.[108] Instead, reciprocity arguments assume that either negligence or strict liability is the appropriate background rule. What, then, is the significance of reciprocity for purposes of choosing between negligence and strict liability?

The normative appeal of reciprocity lies in its evident connection with equality: the two parties are equal in all relevant respects. Assuming that protection of the associated individual rights appropriately reduces to a consideration of welfare—an assumption that seems to be particularly appropriate in contexts of strict equality between the parties—then economic analysis can provide guidance.

In the case of a perfectly reciprocal risky interaction, whatever safety precautions are required of one individual will be required of the other. Whatever safety benefits accrue to one person will accrue to the other. Because the costs and benefits of tort liability inure equally to both individuals, the two can be conceptualized as one entity. Just as an individual maximizes her welfare by minimizing costs, the welfare of each perfectly reciprocal party is maximized by the cost-minimizing tort rule.[109] Negligence is less costly than strict liability, all else being equal, due to the higher cost of tort compensation as compared to other insurance mechanisms.[110] Negligence liability for reciprocal risks accordingly provides the best protection for the welfare levels of the right-holders, thereby adequately protecting the individual right to security.

Nonreciprocal risks have different distributive properties. For such risks, if negligence and strict liability would each attain identical risk levels, then the guarantee of injury

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[106] Fletcher, *supra* note __, at 547.
[107] Gregory C. Keating, *A Social Contract Conception of the Tort Law of Accidents* in PHILOSOPHY AND THE LAW OF TORTS, *supra* note __, at 22, 30-42; Perry, *Outcome Responsibility*, *supra* note __, at 111-115.
[108] JULES L. COLEMAN, RISKS AND WRONGS 266-69 (1992); RICHARD A. EPSTEIN, CASES AND MATERIALS ON TORTS 152 (Aspen Law & Bus. Ed., 7th ed. 2000) (arguing that "the norm of reciprocity is consistent with either general system, whether negligence or strict liability").
[109] For a more complete demonstration of this point, see Mark Geistfeld, *Placing a Price on Pain and Suffering: A Method for Helping Juries Determine Tort Damages for Nonmonetary Injuries*, 83 CAL. L. REV. 773, 851-52 (1995)(hereinafter "Pain and Suffering").
[110] Mark Geistfeld, *Should Enterprise Liability Replace the Rule of Strict Liability for Abnormally Dangerous Activities?*, 45 UCLA L. REV. 611, 625-33, 639-46 (1998).

compensation gives strict liability a decisive advantage in protecting the welfare of right-holders. This reasoning explains why the rule of strict liability for abnormally dangerous activities applies to highly significant, nonreciprocal risks whenever negligence and strict liability would attain identical risk levels.[111]

This rule has not been adequately explained by fairness theorists, nor can it be explained by the conventional economic analysis of tort law.[112] By contrast, this rule of strict liability can be explained by the normative concept of reciprocity as complemented by distributive economic analysis, illustrating how our understanding of tort law can be furthered by distributive economic analysis.

The analysis is not yet complete, however. In any given risky interaction like that involving the driver and pedestrian, the risk is decidedly nonreciprocal. Yet the interaction can be conceptualized as being reciprocal insofar as the pedestrian over time also engages in a like amount of driving. The pedestrian's right to drive, and her exercise of that right over time, may mean that driving confers an adequate benefit on her, making a particular risky interaction with a driver reciprocal. Should reciprocity be conceptualized in long-run terms or relative to each risky interaction?

This issue also involves distributive considerations that can be uncovered by economic analysis, bringing the normative question into sharper relief. As a normative matter, the position of the two parties for tort purposes can be considered from a variety of perspectives. As each party's position becomes further removed from a particular risky interaction, the resultant perspective loses focus of the right-holder. Anyone, when placed in a wider context, will be both a duty-holder and right-holder. A normative concern about protecting the security interest of the right-holder becomes transformed into a concern for protecting the individual's full range of interests. The most long-run conception of all, which places everyone behind the veil of ignorance, can completely eliminate individual differences and justify liability rules that maximize average utility.[113]

By potentially justifying liability rules that maximize average utility, the long-run conception of reciprocity may be inconsistent with the rationale for tort rules based on individual rights. Utilitarianism, after all, is thought to be inconsistent with rights-based forms of justice, so tort rules that maximize average utility would seem to be inconsistent with rights-based tort rules. To avoid this inconsistency, reciprocity cannot be conceptualized in long-run terms and must be framed in terms of risky interactions.

This conclusion can be further supported by distributive analysis. The pedestrian undoubtedly benefits from the right to drive. But that benefit varies across individuals, as does the risk that anyone faces from any type of risky interaction. Reciprocity defined in terms of each

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[111] RESTATEMENT (THIRD) OF TORTS, *supra* note __, at §20.

[112] The reciprocity rationale for strict liability does not require risk reduction, whereas the conventional economic analysis of tort law finds strict liability to be justified only when it would reduce risk below the level attainable in a negligence regime. Steven Shavell, *Strict Liability Versus Negligence*, 9 J. LEG. STUD. 1 (1980).

[113] *See* John Harsanyi, *Can the Maximin Principle Serve as a Basis for Morality? A Critique of John Rawls's Theory*, 59 AM. POL. SCI. REV. 594, 596-97 (1975); John C. Harsanyi, *Morality and the Theory of Rational Behavior* in UTILITARIANISM AND BEYOND 39 (Amartya Sen & Bernard Williams eds. 1982).

risky interaction is more capable of accounting for individual differences than is long-run reciprocity, which effectively converts individual case-by-case differences into some sort of collective average. What is true on average need not be true in every case: some people will be exposed to abnormally high degrees of nonconsensual risk and will impose lower than normal risks on others. These individuals are the ones who would be most disadvantaged by tort rules permitting nonconsensual risks. Protecting the individuals most disadvantaged by nonconsensual risks would seem to be an issue of great normative concern for a fair theory of tort law. Distributive considerations accordingly provide further support for a conception of reciprocity defined in terms of risky interactions like those between drivers and pedestrians.

The way in which reciprocity should be conceptualized ultimately involves a distributive matter that cannot be fully resolved by economic analysis. But the distributive dimensions of the problem are usefully illuminated by economic analysis, showing how a normative problem can be clarified by distributive economic analysis.

C. *Tort Damages for Pain and Suffering*

Tort damages are supposed to make the victim "whole" by restoring her welfare to the level in the pre-accident state of the world.[114] Issues pertaining to damages therefore provide the most obvious reason why welfare concerns and economic analysis matter to any rights-based theory of tort law. Such a role for economic analysis is not trivial; it provides useful insights into the nature of tort liability. A good example is provided by the question of how one ought to conceptualize a monetary tort award for something like pain and suffering.

Tort damages for pain and suffering provide compensation for limited types of nonmonetary injuries.[115] These damages have been debated extensively by tort scholars, with one camp maintaining that the damages should be eliminated or curtailed, and the other defending the damages on fairness grounds.

The debate arises because these damages may be allocatively inefficient. Pain and suffering reduce welfare but not one's need for money. A rational, well-informed person would not spend money on insurance premiums to guarantee monetary compensation for an injury that does not increase the need for money.[116] Like insurance, tort damages guarantee compensation in the event of injury. The inefficiency of insurance for nonmonetary injuries thus establishes the inefficiency of tort damages for pain and suffering.[117]

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[114] RESTATEMENT (SECOND) OF TORTS § 901 cmt. a.

[115] Pain-and-suffering damages encompass the various types of nonmonetary injuries compensable in tort, such as physical pain, anxiety, fright, grief, indignity, nervousness, and loss of life's pleasures for nonfatal accidents. 22 AM. JUR. 2D DAMAGES §§ 239-40 (1988).

[116] The foundational analysis showing that risk-averse individuals may not want to "fully insure an irreplaceable commodity" is Philip J. Cook & Daniel A. Graham, *The Demand for Insurance and Protection: The Case of Irreplaceable Commodities*, 91 Q. J. ECON. 143 (1977).

[117] *See* Robert Cooter, *Towards a Market in Unmatured Tort Claims*, 75 VA. L. REV. 383, 389-91 (1989); Patricia M. Danzon, *Tort Reform and the Role of the Government in Tort Reform*, 13 J. LEGAL STUD. 517 (1984); David Friedman, *What is "Fair Compensation" for Death or Injury*?, 2 INT'L REV. L. & ECON. 81 (1982); RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 218 (5th ed. 1998); George L. Priest, *The Current Insurance Crisis and Modern Tort Law*, 96 YALE L.J. 1521, 1546-47 (1987); SHAVELL, ECONOMIC ANALYSIS OF TORT LAW, *supra* note __, at 248-49. Others have limited the claim to product transactions. John E. Calfee & Paul H. Rubin, *Some*

The conclusion that pain-and-suffering tort damages are allocatively inefficient has engendered proposals to eliminate them.[118] The availability of such damages has been curtailed in many states.[119] A cap on these damages is the tort reform for medical malpractice favored by the American Medical Association.[120]

In defense of the damages, fairness scholars have criticized the economic argument equating tort damages with insurance. "The insurance theory's fatal flaw is that it makes the kinds and amount of tort recovery depend upon individual preferences for insurance, rather than communally-agreed-upon normative judgments about the impact of a personal injury upon the victim's overall well-being…."[121]

This critique correctly defines the problem in welfare terms rather than by reference to the plaintiff's insurance preferences. Yet the argument need not justify tort awards for pain and suffering for reasons made clear by distributive economic analysis.

With respect to damages rules, the plaintiff's right must obviously be considered in welfare terms. "[T]he law of torts attempts primarily to put an injured person in a position as nearly possible equivalent to his position prior to the tort."[122] Monetary damages for pain and suffering do not "restore the person to his previous position," but merely "give the injured person some pecuniary return for what he has suffered or is likely to suffer."[123] The payment of monetary damages is an attempt to make the plaintiff whole by restoring welfare.

As a matter of justice, the duty to repair the plaintiff's injury by the payment of monetary damages is an obligation of the defendant. Why should it matter whether the plaintiff would find it rational to purchase insurance for the injury?[124] The defendant is obligated to protect adequately the welfare of the plaintiff. Hence fairness theorists correctly conclude that the plaintiff's welfare, rather than her insurance preferences, ought to determine tort damages.

Implications of Damage Payments for Nonpecuniary Losses, 21 J. LEGAL STUD. 371 (1992); Alan Schwartz, *Proposals for Products Liability Reform: A Theoretical Synthesis*, 97 YALE L.J. 353, 362-67 (1988).

[118] The most common proposal replaces pain-and-suffering tort damages with a system of administrative fines and rebates. Danzon, *supra* note __, at 520-22; SHAVELL, *supra* note __, at 233-34; Michael Spence, *Consumer Misperceptions, Product Failure and Producer Liability*, 44 REV. ECON. STUD. 561 (1977).

[119] For example, in 1986 and 1987, 22 states enacted tort-reform legislation limiting the availability of pain-and-suffering tort damages, 12 specifically for medical malpractice claims. Randall Bovberg, *Legislation on Medical Malpractice: Further Developments and a Preliminary Report Card*, 22 U.C. DAVIS L. REV. 499, 543 (1989). Since then, states have continued to enact tort-reform legislation limiting such damages. James Cahoy, *Tort Reform Legislation Since 1994*, 12-6-96 WEST'S LEGAL NEWS, 1996 WL 699299.

[120] *See* http://www.ama-assn.org.

[121] Heidi Li Feldman, *Harm and Money: Against the Insurance Theory of Tort Compensation*, 75 TEX. L. REV. 1567, 1599 (1997).

[122] RESTATEMENT (SECOND) OF TORTS § 901 cmt. a.

[123] Id. § 903 cmt. a.

[124] *E.g.*, Gregory C. Keating, *The Idea of Fairness in the Law of Enterprise Liability*, 95 MICH. L. REV. 1266, 1375 (1997)(arguing that under Kantian social contract theory individuals "have no general duty to insure ourselves against the wrongdoing of others").

That conclusion, though, does not necessarily justify tort damages for pain and suffering. In important contexts, the plaintiff's welfare is appropriately evaluated in light of her insurance preferences. If those preferences exclude insurance for pain and suffering, then the adequate protection of the right-holder's welfare need not include tort awards for nonmonetary injuries.

When the parties to an accident have no pre-existing relationship, tort law provides the primary means of allocating the benefits and burdens of the risky behavior. The driver benefits from the activity of driving, whereas the pedestrian faces the risk of injury. Each incurs her own precautionary costs. How tort law should distribute these benefits and burdens between the two parties is an issue of fairness not posed by contexts in which the parties have a pre-existing contractual relationship, like product cases involving consumers and manufacturers. As products liability law acknowledges, any tort burdens incurred by the manufacturer are passed onto the consumer in the form of higher prices, eliminating any consideration of how tort liability affects the manufacturer (the potential injurer).[125] The distributive question in product cases fundamentally differs from that posed by other tort cases, like those between drivers and pedestrians. Due to this distributive difference, adequate protection of the right-holder's welfare in contractual settings can depend upon her insurance preferences.

In the vast majority of product cases, the potential victim can be conceptualized as a consumer who both pays for and benefits from safety investments or guarantees of injury compensation.[126] The costs and benefits of tort liability are largely internalized by the consumer, and consumer welfare is maximized by tort rules that minimize the cost of product accidents. The adequate protection of consumer interests thus appropriately considers whether consumers would prefer to pay for tort insurance, since consumers do in fact pay for the tort liability incurred by manufacturers.[127] Conceptualized in this manner, the consumer preference to forego tort insurance for pain and suffering is a powerful reason for eliminating these damages. Adequate protection of the consumer right to product safety need not justify tort damages for nonmonetary injuries, although in my view it does.[128]

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[125] RESTATEMENT OF THE LAW THIRD, TORTS: PRODUCTS LIABILITY § 2 cmt. f at 23 (1998)(stating that "it is not a factor … that the imposition of liability would have a negative effect on corporate earnings or would reduce employment in a given industry").

[126] A consumer for this purpose includes one who uses the product with the purchaser's permission, assuming that the purchaser gives equal consideration to the welfare of users, typically family and friends, in making the purchase decision.

[127] The equilibrium price must cover all of the manufacturer's costs, including its liability costs. At this baseline, each consumer pays the full cost of tort liability. Another baseline, of course, could alter the conclusion. Given a baseline of no liability, the adoption of tort liability would increase cost and price, which in turn could decrease aggregate demand and thereby reduce price. The price reduction induced by the reduction in demand means that from a baseline of no liability, consumers need not bear the full cost of tort liability, depending on the relevant elasticities. The appropriate baseline accordingly determines whether consumers fully pay for tort liability. For tort purposes, the appropriate baseline involves the equilibrium governed the normatively justified tort rule. *Cf. supra* note __ and accompanying text (explaining why normative justification must determine initial entitlements). At this equilibrium, each consumer pays the full cost of tort liability.

[128] The deterrence value of the tort award makes it second-best efficient to give victims at least some pain-and-suffering damages. Geistfeld, *Pain and Suffering*, *supra* note __, at 845-47. The deterrence value is not enough to make fully compensatory damages efficient, but since other

Fairness theorists have largely ignored the distributive differences between products liability and other tort cases.[129] The fair distribution of welfare, though, is an important aspect of a rights-based tort system. For risky interactions like those between drivers and pedestrians, the rights-based rule does not minimize costs, and the desirability of damages does not depend on the insurance preferences of the right-holders. For risky interactions in contractual settings, the fair rule is no different than the allocatively efficient rule, and the desirability of damages depends on the preferences of consumers as right-holders. Hence there would be no inconsistency in a tort system that allows nonmonetary damages for automobile accidents while limiting such damages for medical malpractice.

Just as economists have failed to recognize the distributive dimension of tort law, fairness theorists have failed to recognize the conditions under which the demands of fairness coincide with the demands of efficiency. Like other tort issues, the debate concerning pain-and-suffering tort damages illustrates how fair theories of tort law can be improved by distributive economic analysis.

Conclusion

The conventional economic analysis of tort law formulates liability rules to minimize total accident costs. This single role does not seem limiting, because the conventional approach claims that the tort system should only minimize costs.

The claim, of course, is normative. For economists, "the modern interpretation of 'common good' typically involves Pareto optimality."[130] Not surprisingly, then, proponents of cost-minimizing tort rules have tried to justify the rules with the Pareto principle.

Richard Posner was the first to justify cost-minimizing tort rules in these terms.[131] The Pareto principle requires any change in liability rules that would make at least one person better off and no one worse off. Everyone would consent to such a change, so Posner concluded that the promotion of individual autonomy makes the Pareto principle normatively appealing. Posner then argued that each person, if given the opportunity, would give ex ante consent to cost-minimizing tort rules, providing an autonomy-based justification for a cost-minimizing tort system.

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injuries are not optimally compensated, the total amount of tort damages received by consumers arguably is efficient. *Id*. at 800-03.

[129] *E.g*., Feldman, *supra* note __; Keating, *supra* note __. For a notable exception, see COLEMAN, RISKS AND WRONGS, *supra* note __, at 407-29. Even Coleman's analysis would be improved upon by distributive economic analysis. He justifies product liability rules based upon the "rational contracting model" because the parties are already in a contracting relationship and so "the tort rules extend the contract approach, thereby enhancing the overall rationality and, as a consequence, the predictability of the scheme of risk allocation." *Id*. at 418-19. Although this is true, distributive economic analysis more persuasively shows why the "rational contracting model" is appropriate for formulating these tort rules. The rationale is not that it extends the contract approach, but that it best protects the welfare of right-holders consistently with the tort principle of fairness.

[130] *Id*.

[131] Richard A. Posner, *The Ethical and Political Basis of the Efficiency Norm in Common Law Adjudication*, 8 HOFSTRA L. REV. 487, 488-97 (1980).

Posner' argument ultimately fails. It relies on hypothetical consent, undermining its normative significance.[132] The argument also does not justify a cost-minimizing tort system. Cost-benefit analysis cannot specify initial entitlements.[133] Any change from the status quo (the set of initial entitlements) will create winners and losers. A cost-reducing change therefore is not required by the Pareto principle unless the losers are adequately compensated for the change. Lacking such compensation, a cost-minimizing tort system promotes allocative efficiency rather than Pareto efficiency.

A different tack to the problem was then taken by Louis Kaplow and Steven Shavell, who rely upon violations of the Pareto principle as the mode for justification. Whereas an allocatively efficient liability rule does not violate the Pareto principle, Kaplow and Shavell prove that "fair" tort rules can violate the Pareto principle. Insofar as this possible outcome is undesirable, the Pareto principle provides a reason for rejecting fair tort rules in favor of allocatively efficient, cost-minimizing tort rules.

This argument also founders. Kaplow and Shavell assume that all rights-based tort rules satisfy their analytic definition of "fairness" and are governed by their proof. A "fair" rule in the proof gives weight to fairness that is independent of welfare. Corrective-justice tort rules are not "fair" in this analytic sense. Rather than giving weight to fairness that is independent of welfare, a rights-based rule constrains the ability of the tort system to promote social welfare at the expense of the individual right. A constraint avoids the problems that Kaplow and Shavell attribute to all rights-based tort rules. In particular, a rights-based constraint for the tort system is not binding when the right-holder voluntarily assumes the risk. The principle of fairness permits the right-holder to exercise or waive the right when it is in her interest to do so, eliminating the possibility that the principle of fairness violates the Pareto principle.

This analysis has an important implication. Although a rights-based principle constrains the ability of the tort system to promote social welfare, the constraint does not make welfare considerations irrelevant. It merely defines the conditions under which tort rules appropriately depend upon welfare. A rights-based tort system therefore provides an important role for economic analysis, one that operates within the constrained space of welfare concerns.

In any tort system, including those based upon individual rights, the resolution of tort issues often requires consideration of welfare levels. The computation of tort damages provides the most obvious example, but welfare considerations are likely to be relevant for other issues as well. The tort system must permit many forms of nonconsensual risks. In these cases, protection of the individual right to security involves adequate protection of the right-holder's welfare in some manner that does not unfairly burden the welfare of the duty-holder. The way in which tort liability affects the distribution of welfare can be ascertained by distributive economic analysis.

Distributive economic analysis also identifies the conditions under which the requirements of fairness correspond to the requirements of allocative efficiency. In many important settings like driver-pedestrian interactions, adequate protection of the right-holder's welfare requires tort rules that do not minimize costs, creating a conflict between fairness and allocative efficiency. But in other important settings, including those that involve product risks or reciprocal risks, adequate protection of the right-holder's welfare requires the minimization of accident costs. In these contexts, there is no important difference between the requirements of

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[132] *See* Coleman, *Grounds of Welfare*, *supra* note __, at 1516-20.
[133] *See supra* notes __ and accompanying text. [Part II.A]

fairness and allocative efficiency. Due to the "overlapping consensus" of these two forms of justification, one does not have to choose a particular normative conception (fairness or efficiency?) in formulating products liability rules, for example.[134]

Once economic analysis is incorporated into a fair theory of tort law, the discipline can move in the direction advocated by one of its founders, Guido Calabresi. Although Calabresi was one of the first scholars to analyze how tort liability affects accident costs, he did not make the stronger claim that tort law should minimize accident costs. For Calabresi, justice or fairness is not "a goal of the same type as cost reduction but … a veto or constraint on what can be done to achieve cost reduction."[135] The principle of fairness is more than a constraint, however. "[F]airness is the final test which any system of accident law must pass."[136] Fairness therefore also determines the appropriate distributive outcome within the constrained space of welfare concerns. Such a conception of fairness still relies upon economic analysis, but the inquiry no longer exclusively involves cost minimization. Freed from such a limited and controversial role, economic analysis becomes integral to a unified conception of tort law.

[134] *Cf.* JOHN RAWLS, POLITICAL LIBERALISM (1993) (arguing that a political conception of justice can accommodate a plurality of incompatible doctrines by focusing on the overlapping consensus of reasonable, comprehensive doctrines)..

[135] GUIDO CALABRESI, THE COSTS OF ACCIDENTS 24 n. 1 (1970); *see also* Guido Calabresi, *First Party, Third Party, and Product Liability Systems: Can Economic Analysis of Law Tell Us Anything About Them?*, 69 IOWA L. REV. 833, 847 (1984) (observing that economic analysis "certainly does not tell us what weight to give to other distributional goals that the society seems to value…. It does, however, give us an analytical structure that allows us to see far better what is at stake in the choice of systems [governing accidents]."

[136] CALABRESI, *supra* note __, at 24 n.1.