# THE END OF EQUITY IN NORMATIVE ECONOMICS

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"The theory of justice is a part, perhaps the most significant part, of the theory of rational choice."

--John Rawls, <u>A Theory of Justice</u> (p. 14)

Rawls wrote <u>A Theory of Justice</u> to offer a rigorous alternative to utilitarianism as a moral-philosophical guide to the theory of legal intervention. However, despite these earnest intentions, careful reconsideration of <u>A Theory of</u> <u>Justice</u> reveals, instead, fundamentally <u>utilitarian</u> reasoning, a point not previously widely realized.<sup>1</sup> Moreover, it can be shown that Rawls's argument is not only utilitarian but also justifiable on economic efficiency grounds, and should thus be embraced by non-utilitarian (as well as utilitarian) economists and other social scientists. Consequently, concerns traditionally classified as involving "equity" by philosophers like Rawls as well as modern economists and other social scientists, will be shown here to fall under the surprisingly extensive rubric of economic efficiency.

In his book, Rawls claimed that individuals completely ignorant of any of the incidents or circumstances of the life they would lead would rationally agree to "certain moral principles" (p. 16) whereby the welfare of the least-advantaged member of society is improved until she is no longer the least-advantaged member, i.e., until welfare is equalized for each member of society (p. 62). Such an outcome was acclaimed by Rawls as "just", but he did not appreciate that a reinterpretation of his logic would lead to a policy which incorporated these concerns, traditionally lumped under "equity", within the framework of economic efficiency. The aim of this paper is to demonstrate this last point, and thus end the longstanding perceived conflict between "effiency" and "equity". Because "equity" can now be fruitfully destroyed and resurrected as an aspect of economic efficiency, it is hoped that appeals to equity in scholarly and practical contexts will be abandoned, and, at the same time, that proponents of efficiency will recognize that prior "equitable" concerns now must be incorporated in any responsible scholarly "efficiency" assessment of public policy.

## I. Reviewing Rawls

To understand the somewhat radical reinterpretation of Rawls propounded here, it is vital to identify which of Rawls's ideas are endorsed in this paper, and which are discarded. Indeed, one might start well prior to Rawls, as he admits:

> I must disclaim any originality for the views I put forward. The leading ones are classical and well known. My intention has been to organize them into a general framework by using

<sup>&</sup>lt;sup>1</sup> Boadway and Bruce (1984) briefly allude to this point.

certain simplifying devices so that their full force can be appreciated. My ambitions for the book will be completely realized if it enables one to see more clearly the chief structural features of the alternative concept of justice that is implicit in the contract tradition and points the way to its further elaboration (p. viii).

At the same time, it is beyond the scope of this paper to track carefully the antecedents of Rawls's analysis and my own in Kant, Rosseau, Locke, and others<sup>2</sup>, although the pre-Rawls contributions of modern economists such as Harsanyi (1953,1955) and Vickrey (1960,1961) will be scrutinized. Rather, this paper will accept <u>A Theory of Justice</u> as an accurate depiction of the moral-philosophical literature prior to its time.

At the outset of his book, Rawls announces his motivation: "to construct a workable and systematic moral conception to oppose [utilitarianism]" (p. viii), even though previous attempts by others had "failed". According to Rawls:

What I have attempted to do is to generalize and carry to a higher order of abstraction the traditional theory of the social contract as represented by Locke, Rousseau, and Kant. In this way, I hope the theory can be developed so that it is no longer open to the more obvious objections often thought fatal to it. Moreover, this theory seems to offer an alternative systematic account of justice that is superior, or so I argue, to the dominant utilitarianism of the tradition (p. viii).

As for "justice", it is not only a *normative* goal prior to any other for Rawls (pp. 3-6) but also a *positive* behavioral impetus ("Everyone is presumed to act justly", p. 8).

Besides assuming that people are just (an assumption we will later critically assess), Rawls also implicitly and perhaps somewhat unwittingly assumes that people are rational. In his terms, "the principles of justice are *agreed to* in an initial situation that is fair" (p. 12, emphasis added). This "initial situation" is one where "no one knows his place in society, his class position or social status, nor does any one know his fortune in the distribution of natural assets and abilities, his intelligence, strength, and the like. . . . The principles of justice are *chosen* behind a

<sup>&</sup>lt;sup>2</sup> Gough (1957) provides a thoughtful account of this intellectual history.

veil of ignorance" (p. 12, emphasis added). Despite the apparent rational-choice foundation for his theory, Rawls claims that "the principle of utility is incompatible with the conception of social cooperation among equals for mutual advantage" (p. 14), thus distinguishing his theory, in his mind, from utilitarianism and modern economics (p. 15).

Rawls then describes the two principles of justice that would be agreed to by (rational) people in the "initial situation":

First: each person is to have an equal right to the most extensive basic liberty compatible with a similar liberty for others.

Second: social and economic inequalities are to be arranged so that they are both (a) reasonably expected to be to everyone's advantage, and (b) attached to positions and offices open to all (p. 60).

The focus of this paper is not on the "basic liberties" ensured in the first principle—"political liberty (the right to vote and to be eligible for public office) together with freedom of speech and assembly; liberty of conscience and freedom of thought; freedom of the person along with the right to hold (personal) property; and freedom from arbitrary arrest and seizure" (p. 61)—but on the economic and social outcomes mediated by the second principle, since these outcomes are subject to uncontrollable individual risk in a way the others are not (a distinction emphasized and justified later in the paper). The second principle requires, therefore, that everyone benefit from a new policy (using "policy" as an abbreviation for, in Rawls's words, how "social inequalities are to be *arranged*" (p. 60)),<sup>3</sup> thus rejecting the economist's commonly used notions of Kaldor-Hicks efficiency<sup>4</sup> (where one individual's losses are allowed if they are exceeded by gains to another (pp. 64-65)) and Pareto-optimality (which allows gains to one individual if no other individual

<sup>&</sup>lt;sup>3</sup> This alignment of Rawls's theory with the notion of "policy" is inescapable, despite his protestations that "the content of the relevant agreement is not to enter a given society or to adopt a given form of government, but to accept certain moral principles" (p. 16). Indeed, the presumed intended relevance of <u>A Theory of Justice</u>, and its devotion of 198 pages to a major part entitled "Institutions" suggest that the shortening of "how 'social inequalities are to be *arranged*" (p. 60) to "policy" is not inappropriate, an interpretation supported by Rawls's own words: "It is natural to ask why, if this agreement is never actually entered into, we should take any interest in these principles, moral or otherwise. The answer is that . . . . [t]hese constraints express what we are prepared to regard as limits on fair terms of social cooperation" (p. 21).

<sup>&</sup>lt;sup>4</sup> Lawson (1992, p. 89) correctly endorses Posner's (1986) claim that "When an economist says that free trade or competition or the control of pollution or some other policy or state of the world is efficient, nine times out of ten he means Kaldor-Hicks efficient."

loses as the result of a change in circumstances (pp. 66-68)). In particular, Pareto-optimality is not protective enough of the "least advantaged", leading Rawls to propose an extension of Pareto-optimality which he labels the "difference principle". According to the difference principle, the welfare of each advantaged person A may only be improved if the welfare of each "least advantaged" person B is also improved at the same time (pp. 76-78). This standard clearly rules out policies which improve A's welfare while not affecting B's welfare, policies which meet the standard set by Pareto-optimality. Ultimately, Rawls does not precisely define the "least advantaged", but does acknowledge that such a definition would include low income relative to the population mean or median (p. 98), as well as immutable characteristics, such as "sex", and "those depending on race and culture" (p. 99).<sup>5</sup>

The difference principle is applied as policy to people totally unaware of their circumstances, i.e., "behind a veil of ignorance" (p. 136). Personal ignorance behind the veil exists with respect to one's "place in society, his class position or social status", "fortune in the distribution of natural assets and abilities, his intelligence and strength, and the like", "his conception of the good, the particulars of his rational plan of life, or even the special features of his psychology such as his aversion to risk or liability to optimism or pessimism", "the economic or political situation, or the level of civilization and culture" of his society, and, finally, of which "generation" one is a member (p. 137). But some things are known, "the general facts about human society" (p. 137). These include "political affairs", "the principles of economic theory", "the basis of social organization", "the laws of human psychology" (p. 137).

At this juncture, Rawls also explicitly assumes that the motivation of people behind the veil is rational ("I have assumed throughout that the persons in the original position are rational" (p. 142)). This conception of rationality squares with that assumed by economists: a person in the original position "rank[s] the alternatives" and "follows the plan which will satisfy more of his desires rather than less" (p. 143). Rawls further simplifies this general conception by assuming that people are neither altruistic nor envious ("The parties do not seek to confer benefits or to impose injuries on one another" (p. 144)). The one substantial departure from the economist's standard conception of rationality which Rawls makes is to assume "strict compliance": "the parties can rely on each other to understand *and to act in accordance with* whatever principles are finally agreed to" (p. 145, emphasis added). This assumption derives from people's "capacity for a sense of justice" (p. 145).

Rationality provides the basis for individuals to agree to Rawls's "two principles of justice". To Rawls, the implication of such agreement is "equal distribution" (p. 150), unless "[i]nequalities . . . maximize, or at least all contribute to, the long-term expectations of the least fortunate group in society" (p. 151).

<sup>&</sup>lt;sup>5</sup> Rawls also objects to Pareto-optimality on the (erroneous) ground that it mandates interpersonal utility comparisons (pp. 90-92); Lawson points out that interpersonal comparisons are not necessary for applying Pareto-optimality, see Lawson (1992).

Rawls interprets this qualified desire for equality as the "maximin solution to the problem of social justice" (p. 152).<sup>6</sup> Rawls claims that "maximin" behavior should be assumed in constructing his theory of justice because "the two principles are those a person would choose for the design of a society in which his enemy is to assign him his place" (p. 152), although "The persons in the original position do not, of course, assume that their initial place in society is decided by a malevolent opponent" (p. 153).

Rawls subsequently offers a more extensive defense of the "two principles" as bases for policy, compared to the utilitarian alternative. His central argument is that rational people in the original position prefer maximin and its policy implication, complete equality, to the utilitarian alternative, which allows divergent outcomes after the policy is executed. One aspect of this preference is that utilitarian policy requires greater "strains of commitment" than maximin. Indeed, "should a person gamble with his liberties and substantive interests hoping that the application of the principle of utility might secure him a greater well-being, he may have difficulty abiding by his undertaking" (p. 177). Another related aspect of Rawls's claim that maximin policy is preferred is that it exhibits greater "psychological stability" in that people subject to the policy in actuality (outside the original position) will be less resistant to it than to utilitarian policy (p. 177).

> [T]he principle of utility seems to require a greater identification with the interests of others than the two principles of justice. Thus the latter will be a more stable conception to the extent that this identification is difficult to achieve. . . . When the principle of utility is satisfied. . . there is no. . . assurance that everyone benefits. Allegiance to the social system may demand that some should forgo advantages for the sake of the greater good of the whole. Thus the scheme will not be stable unless those who must make sacrifices strongly identify with interests broader than their own (pp. 177-178).

<sup>&</sup>lt;sup>6</sup> "Maximin" is a term borrowed from game theory which refers to one player of the game, A, choosing her action, knowing that the other player, B, will try to make her as badly-off as possible whatever choice A makes (since doing so makes B as well-off as possible in a game where some fixed amount of resources is to be divided between A and B). Thus, A chooses as her action that which gives her the highest possible outcome (i.e., maximum, in A's terms) based on B's self-interested and thus A-harming choice (i.e., minimum, in A's terms). The maximinum of these minimums is thus designated the "maximin"; see Baumol (1977, pp. 438-440).

Furthermore, "[l]ooking at the question from the standpoint of the original position, the parties recognize that it would be highly unwise if not irrational to choose principles which may have consequences so extreme that they could not accept them in practice" (p. 178). Rawls also perceives that utilitarian policy allows unequal outcomes and thus involves greater risk than policy based on maximin, a point central to my reinterpretation.

# II. Reinterpreting Rawls

Despite Rawls's extensive attempts to portray his theory of justice as <u>not</u> utilitarian, it is a thesis of this paper that it is, in fact, essentially utilitarian. Moreover, this section demonstrates that Rawls's theory of justice, traditionally described as involving 'justice', 'equity', 'egalitarianism', 'redistribution', *et al.*, is a theory based on *economic efficiency*. Thus, revising and reinterpreting Rawls (and other economists writing post- and pre-Rawls as well) allows the reformulation of the classic problem of "equity" along the principled lines of economic efficiency.

# A. <u>A Theory of Justice</u> is Utilitarian

Rawls's self-described mission is "to construct a workable and systematic moral conception to oppose" utilitarianism (p. viii). Yet this "conception" is clearly founded on rational choice (as emphasized in section I). To do this, Rawls attempts to rule out utilitarian policy: "In the absence of strong and lasting benevolent impulses, a rational man would not accept a basic structure merely because it maximized the algebraic sum of advantages [to society as a whole] irrespective of its permanent effects on his own basic rights and interests" (p. 14). He then apparently concludes that he is rid of <u>all</u> utilitarian concepts, as he continues, "Thus it seems that the principle of utility is incompatible with the conception of social cooperation among equals for mutual advantage" (p. 14). Not only is this generalization false, but it is falsified by Rawls's theory of justice.

In fact, Rawls repeatedly describes the "principles" of his theory of justice as those "that would chosen by rational persons" (p. 16) were they in the "original position". The welfare of the 'choosers' is the "expectation of well-being to representative individuals" (p. 64). Clearly, then, a set of principles which would be rationally chosen satisfies a number of different rational-choice normative standards, including Pareto-optimality (i.e., some benefit and none are harmed) and Kaldor-Hicks optimality (i.e., those who benefit gain enough to compensate for the losses suffered by those harmed). This lodges Rawls—along with Bentham, Bergson, and Samuelson—clearly in the broad utilitarian mold characterized by a consequentalist normative standard. For utilitarians, "Actions are deemed just if they raise social welfare in some sense" (Boadway and Bruce, 1984, p. 176). That Rawls is utilitarian is also recognized by Arrow (1973): "the maximin criterion, far from being opposed to average utilitarianism, can be regarded as a limiting case of it."7

Perhaps because Rawls does not appreciate that his prime motive is utilitarian, he consequently imposes a restrictive and unnecessary condition on the social welfare function—that it is maximin. However, Rawls is wrongly criticized by those, including Harsanyi (1975) and Posner (1981), who misread Rawls as assuming that <u>individual</u> utility functions are maximin. Harsanyi lampoons this straw man:

If you took the maximin principle seriously then you could not ever cross a street (after all, you might be hit by a car); you could never drive over a bridge (after all, it might collapse); you could never get married (after all, it might end in a disaster), etc. If anybody really acted this way he would soon end up in a mental institution (p. 595).

This criticism neglects Rawls's own words:

Clearly the maximin rule is not, in general, a suitable guide for choices under uncertainty. But it is attractive in situations marked by certain specific features. . . . [A] good case can be made for the two principles based on the fact that the original position manifests these features to the fullest possible degree (p. 153).

#### B. But is maximin social welfare preferable to utilitarianism?

The criticism to which Rawls <u>is</u> vulnerable is that he unnecessarily restricts the form of the social welfare function to maximin. Maximizing this particular social welfare function implies that utility is equalized across individuals, which Rawls effectively claims implies that consumption is equalized across individuals. Formally, adopting maximin means that the social welfare function to be maximized is

 $W = \min\{U_1(C_1), U_2(C_2), \dots, U_N(C_N)\},\$ 

<sup>&</sup>lt;sup>7</sup> Arrow, Kenneth J. "Some Ordinalist-Utilitarian Notes on Rawls's Theory of Justice", 70 <u>The</u> <u>Journal of Philosophy</u> (1973): 256.

where  $U_i(C_i)$  is the utility from consumption for the ith individual. The consequence of maximizing this particular social welfare function is that  $U_1 = U_2 = \ldots = U_N$ , which Rawls claims implies  $C_1 = C_2 = \ldots = C_N$ .

He puts this claim not in this precise form, but in a variety of less specific ways: "inequalities of wealth. . . are just only if they result in compensating benefits for everyone" (pp. 14-15), "[t]he idea is to redress the bias of contingencies *in the direction of equality*" (pp. 100-101), and most specifically, "[i]f . . . these inequalities set up various incentives which succeed in eliciting more productive efforts, a person in the original position may look upon them as necessary to cover the costs of training and to encourage effective performance" (p. 151).

Rawls criticizes utilitarianism on several grounds. One problem, in the context of the "original position", involves summing the utilities of different people and thus relies on interpersonal comparisons. Regarding interpersonal comparisons, Rawls notes that "the clearest basis for interpersonal comparisons is in terms of primary goods", the ultimate arguments of his maximin problem, while expected utility maximization takes as arguments "the full range of final ends", which make interpersonal comparison "pointless" (p. 174). While Rawls subsequently suggests that utilitarianism could be reformulated as based on "primary goods", he does not acknowledge that this change would put the two social welfare functions on equal footing (p. 175).<sup>8</sup>

Rawls favors maximin over utilitarianism as a basis for the social welfare function; "the two principles of justice have a definite advantage. Not only do the parties protect their basic rights but they insure themselves against the worst eventualities" (p. 176). Rawls explicitly denies that the value of such insurance derives from risk-aversion: "As far as possible the choice of a conception of justice should depend on a rational assessment of accepting risks unaffected by peculiar individual preferences for taking chances one way or the other" (p. 172).

At the same time, Rawls describes the desire of a person in the original position to "insure" via maximin as being motivated by what sounds like risk-aversion: "It is not worthwhile for him to take a chance for the sake of a further advantage, especially when it may turn out that he loses much that is important to him" (p. 154). Infinite risk-aversion in the original position also provides Rawls's "main grounds" in favor of maximin, i.e., less "strain of commitment" and less "identification with the interests of others" is required (pp. 175-183).<sup>9</sup>

While it is possible to conceive of those in the original position as, say, risk-neutral, this assumption is inconsistent with Rawls's conclusion that maximin

<sup>&</sup>lt;sup>8</sup> In fact, he still regards maximin as superior as it only involves interpersonal ordinality while utilitarianism requires interpersonal *cardinality* (pp. 91-92), a point also noted by Arrow (1973,p. 254).

<sup>&</sup>lt;sup>9</sup> It is conceivable that Rawls merely means that while someone in the original position is infinitely risk-averse, the attitudes towards risk (in ordinary decision-making) of those many individuals whose fate one might draw are not so extreme.

is superior to utilitarianism. If decisions in the original position were made by risk-neutral agents, then they would favor a utilitarian scheme which maximized the sum of individual utilities rather than a policy which vigilantly protected those worst off. It is undisputed among economists that for Rawls to favor maximin he must assume risk-aversion in the original position (see, among others, Arrow (1973), pp. 248,251,256; Posner (1986), p. 437).

Indeed, Rawls's insistence that a maximin social welfare function is Pareto-superior to the utilitarian alternative<sup>10</sup> <u>depends</u> on infinite risk-aversion, i.e., L-shaped social welfare indifference curves. With slightly less than infinite risk-aversion, the risk-premium associated with some very large expected utilities is enough to outweigh the risk of utilitarianism in the original position.<sup>11</sup> Yet Arrow is certainly correct, as an empirical matter, that "in an original position, where the quality of an entire life is at stake, it is reasonable to have a high degree of aversion to risk" (Arrow, 1973, p. 256). Two questions then remain: (1) even if those in the original position are not infinitely risk-averse, is income equalization, as advocated by Rawls, efficient?, and (2) is this conception of the original position merely hypothetical or does it correspond to an actual market failure?

#### III. Reconciling Rawls with economic efficiency

#### A. Equalization without maximin

The social welfare function based on maximin greatly restricts public policy to interventions which enrich all simultaneously or which have the potential to do so. This restrictiveness derives from the extreme form of the maximin assumption: agents in the original position are so risk-averse that they will eliminate diversity in life-outcomes no matter how high the relative price of insurance, in terms of reduced average social income, is. The assumption of a maximin social welfare function is <u>sufficient</u> to achieve Rawls's radical prescription—redistribute income to the point of equality—but is it <u>necessary</u>? Reflections upon utilitarianism indicate that it is not.

Rawls describes the recent antecedents of his position in the writings of the economists Vickrey (1960,1961) and Harsanyi (1953,1955). The important breakthrough in these papers was the realization that a utilitarian social welfare function could be justified by appreciating that a person in the original position who was maximizing expected utility would be maximizing the sum of all individual utilities, as these utilities are the different possible states-of-the-world available from the perspective of the original position. Nevertheless, these earlier works remain problematic, encumbered with assumptions like interpersonal utility

<sup>&</sup>lt;sup>10</sup>"They are the principles that free and rational persons concerned to further their own interests would accept in an initial position of equality" (p. 11).

<sup>&</sup>lt;sup>11</sup> At the extreme, utilitarianism is Pareto-superior to maximin for risk-neutral choosers.

comparability, or other restrictive premises. Consider the summary found in Vickrey (1960):

Thus in many social decision situations it can be seen that even where the question as it originally appears is expressed in economic terms, economics may be unable to proceed very far towards the answer without heavy recourse to ethics. political science, sociology, or even psychology. But this must not be taken as a denial that there are important areas where economics can and should be given substantially the last word, as where conflicts of interest either do not arise or can be compensated or otherwise resolved. Even where actual compensation is impossible and the Pareto condition cannot be satisfied, cases do arise where it can be stated with confidence that the gains outweigh the losses on almost any reasonable basis of interpersonal comparison.<sup>12</sup>

Harsanyi, alternatively, distinguishes between "subjective" and "ethical" preferences, and requires that one respond to one's essentialy hypothetical "ethical" preferences in order to support redistribution. These "ethical" preferences are far from the actual, "subjective" preferences of the representative individual:

His 'ethical' preferences. . . will, on the other hand, express what can in only a qualified sense be called his 'preferences': they will, by definition, express what he prefers only in those possibly rare moments when he forces a special impartial and impersonal attitude on himself.<sup>13</sup>

Pattanaik, summarizing Vickrey's and Harsanyi's findings that expected utility maximization in the original position implies a utilitarian social welfare function, notes that Harsanyi's result depends on interpersonal comparisons, while Vickrey's depends on identical utility functions for each person.<sup>14</sup>

<sup>&</sup>lt;sup>12</sup> Vickrey, at 535.

<sup>&</sup>lt;sup>13</sup> Harsanyi, Cardinal Welfare. . ., at 315.

<sup>&</sup>lt;sup>14</sup> Prasanta K. Pattanaik, *Risk, Impersonality, and the Social Welfare Function*, 76 Journal of <u>Political Economy</u> (1968):1153-1154.

The limitations found in these previous models can be circumvented, however, by reformulating Rawls's problem in a manner palatable to modern welfare economists. Indeed, if we impose standard assumptions on those in the original position, i.e., that they are risk-averse (without requiring their infinite risk-aversion) and expected-utility-maximizing, then risk is imposed on all by the randomness of the original position. Such risk is typically removed by fair insurance. Without insurance, however, Rawls's basic proposition holds: maximin is efficient compared to expected utility maximization.

With the availability of fair insurance, however, in the context of the original position, the problem for any agent would be to choose insurance coverage so as to maximize expected utility. This problem, in its simplest form, faced by any individual k could be formulated as:

Max. 
$$EU_k(N_i) = \Sigma p_i U_k(C_{iE}+N_i)$$
,

where  $C_{iE}$  is *randomly-drawn* consumption in state i ( $C_M$  is the certainty equivalent of the  $C_{iE}$ s) and  $N_i$  the optimal (net) insurance premium ( $N_i > 0$  if  $C_{iE} > C_M$ ), and  $N_i < 0$  if  $C_{iE} < C_M$ ). Maximization then implies:

$$C_{1E}+N_1 = C_{2E}+N_2 = \ldots = C_{NE}+N_N$$
,

i.e., choosing  $N_i$  so as to equalize post-insurance consumption *ex post*.<sup>15</sup> This result is the same as Rawls's: equalization of income is socially optimal.<sup>16</sup> Note, too, that this result does not depend on identical utility functions for each person (as assumed by Lerner (1944)) or on altruism (as assumed by Hochman and Rodgers (1969)). Rawls's ultimately utilitarian policy can be reinterpreted as an efficiency justification for income-equalizing redistribution.

#### B. The "original position" is real

According to Rawls, "It is clear then, that the original position is a purely hypothetical situation" (p. 120). Rawls's description of the original position, however, suggests the mechanism of an actual market failure. Empirically, the original position that Rawls describes—complete ignorance of one's life characteristics—most closely resembles the situation of a fetus. Fetuses cannot transact, but they may benefit from transactions undertaken in their interest.

Specifically, fetuses face the risk of random exogenous disabilities, factors

<sup>&</sup>lt;sup>15</sup> This assumes that utility is not state-dependent.

 $<sup>^{16}</sup>$  Extension of this work can and should incorporate the crucial reality that the  $C_{\rm iE}s$  are endogenous (at least partially), which means that the optimal extent of redistribution is attenuated due to moral hazard.

which diminish quality of life by an objective standard (the basis for this standard will be discussed subsequently). Such factors might include: congenital disabilities such as cerebral palsy, environmental harms and other accidental torts, and race. People respond to risks by acquiring insurance, either in commercial markets or informally. A fetus cannot insure because the transactions costs involved, with mothers or insurance firms, are prohibitive. Nevertheless, anyone facing such risks would choose to insure if it were possible.<sup>17</sup>

The claim that insurance would always be desired regarding significant risks is based on two uncontroversial assumptions—risk-aversion with regard to large losses, and rationality. These assumptions are seemingly more delicate to make with respect to a fetus. It should be emphasized that rationality means desiring to further one's own interest. Certainly, a fetus is not capable of distinct ideation, so in a literal sense rationality is not satisfied. But the law does not always require obvious evidence of rationality, and is even willing to infer it where there is no evidence.

Consider implied consent or "rescue" cases. One prototype is a physician who treats an unconscious but expiring patient; without immediate treatment the patient dies, but the unconscious patient definitely fails the economist's strict test of rationality. In such cases the standard remedy is for courts to infer the existence of a contract, at the physician's market wage rate, for the rescue (see Landes and Posner, 1978).

If the same fiction of rationality is extended to the fetus, then the state's taxation-and-redistribution function fills the gap left by the missing market for fetal insurance. But is intervention necessary? Could, instead, (prospective) parents cure this market failure, without government intervention, by insuring their own fetuses? There are two reasons why such intervention cannot be efficient. First, the possibility of parental moral hazard would raise the price of such insurance above the competitive market equilibrium. Secondly, and more fundamentally, even if moral hazard were eliminated, Zelder (1998) has shown that parents will typically make socially inefficient choices with regard to their children. The reason is that parents, even altruistic ones, maximize a utility function  $V(U_{\rm p}, \alpha U_{\rm c})$ , where  $\alpha$  is the altruism parameter defining the child's weight in the parental utility function V. while the most general social welfare function containing parents' and child's Thus, unless the child's independent weight in the utilities is  $W(V(U_P, \alpha U_C), U_C)$ . social welfare function is zero or the parents are infinitely altruistic ( $\alpha = \infty$ ), parents with large but finite tastes for altruism choose inefficiently with respect to their children.

## IV. Beyond Rawls, beyond equity

<sup>&</sup>lt;sup>17</sup> Posner (1981, pp. 76-77,79-80) is on the periphery of this point, but does not articulate it: he states that economic analysis does not protect those who are "born feeble-minded", a result which "grates on modern sensibilities, yet I see no escape from it that is consistent with any of the major ethical systems...." Further, Posner ultimately does not extend this logic to fetal uncertainty.

Rawls was motivated by the concerns typically classified as issues of "equity". This paper demonstrates that what has been labelled "inequity" is really inefficiency: fetal insurance market failure. This suggests that references to "equity" should be replaced by references to "inefficiency", and that all concerns classically thought to be matters of equity—e.g., affirmative action, transfer payments, higher education funding—are matters to be taken seriously by economists who apply 'only' an efficiency standard. This change, far from merely semantic, has the potential to unify interventionists and libertarians, and provide a principled, actuarial foundation for government intervention.

Of course, the efficient extent of redistribution depends crucially on the extent to which adverse life outcomes that trigger redistribution are <u>chosen</u> rather than imposed. In other words, insurance contracts, including the one pertaining to risk-averse fetuses discussed, are subject to moral hazard, i.e., actions by the insured that make a claim more likely. In the context of insurance for fetuses, the issue arises in redistribution that is tied to outcomes depending on individual efforts (e.g., in work and school). Consequently, as this moral hazard problem (alluded to in footnote 16) is more prominent, the smaller is the efficient extent of redistribution. Developing a framework (actuarial in spirit) that incorporates this concern in a concrete way is a crucial next step.

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