

# An Empirical Refutation of Pareto-optimality?

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Pareto optimality is a fundamental tenet of modern economics. It states that, given an initial allocation of goods between individuals, a change to a different allocation that makes at least one individual better off without making any individual worse off is *prima facie* a good thing: an efficiency improvement. It is ‘Pareto-efficient.’ When all such possible changes have been made, the outcome is Pareto-optimal. This principle is extremely intuitive, and appears to resist any refutation. How could anyone object to a change which makes at least one person better off while making no one worse off?

The bestselling book by Richard Wilkinson and Kate Pickett, *The Spirit Level: Why More Equal Societies Almost Always Do Better*, has been at the centre of a sustained debate<sup>1</sup> concerning its methodology, concerning whether it is right or not, and concerning what its implications are if it is right in its central thesis. That thesis is that epidemiological etc. evidence overwhelmingly suggests that material inequalities—and it is *these* with which I shall primarily be concerned in the present piece; it is primarily they to which I refer when I speak below simply of ‘inequality’—are harmful on a very wide range of measures, in fact in virtually every measurable respect, to virtually everyone in society, including not only (and most of all) the poor *but also the rich*. The rich of course do much better than the poor in materially unequal societies, but, once one has passed basic development thresholds and overcome the evil of absolute poverty, what Wilkinson and Pickett have shown is that relatively egalitarian societies (for example, Japan or the

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Many thanks to Mike Woolliscroft for his thoughtful response (personal communication) to my article <http://www.opendemocracy.net/ourkingdom/rupert-read/philosophical-and-political-implications-of-spirit-level-response-to-gerry-ha>, a response which has inspired the present piece. Deep thanks also to Alex Brown, Ana Fitzsimmons, Shaun Hargreaves-Heap, Molly Scott Cato, Alan Finlayson, Davide Rizza and Richard Wilkinson for very helpful comments that have greatly improved the paper. Thanks in particular to Wilkinson (personal conversations/correspondence) for reinforcing my belief that Rawlsian liberalism is vulnerable to a *Spirit Level* critique.

<sup>1</sup> This is not to imply that I am impressed with many of the criticisms of *The Spirit Level*. On the contrary, I find nearly all of them almost wilfully bad, more attempts at flak than at real *debate*. Wilkinson responds to the criticisms here: <http://www.newstatesman.com/society/2010/11/inequality-social-health-essay>. I find his and Pickett’s published responses to the criticisms that have been made of them more than adequate to the task.

Nordic countries) are better for the rich in those societies, even relative to the rich in less egalitarian societies (and are much better for the poor, compared to the poor in less egalitarian societies). The point being made here is crucial for the argument I will make below. It is not just that redistribution (in its broadest sense, through whatever means, including ‘predistribution’) to make the poor better off works for the poor; having a more equal society is better *for the rich* in that more equal society, too.<sup>2</sup>

‘Better’ here <sup>3</sup> means higher levels of self-reported happiness, longer life expectancy, lower morbidity, less risk of mental illness, higher levels of trust, higher levels of child-well-being, lower rates of infant mortality, lower levels of teenage pregnancy, being less at risk of crime, less environmentally-damaging,<sup>4</sup> etc. (The only significant exception appears to be suicide rates, which are not lower in more egalitarian societies.) Furthermore, there is no apparent limit to the argument: there is no threshold in evidence beyond which further egalitarianism is unhelpful.

I have no space here to debate whether the argument of *The Spirit Level* is sound or not; that is not the purpose of the present paper, which is itself primarily a philosophical (and political) and not an empirical work. So, for the purposes of the philosophy, grant a ‘hypothetical.’ Assume for the sake of argument that, as many (including me) believe, Wilkinson and Pickett *are* basically right, and that they have come up therefore with an empirical argument in favour of equality. Assume, at any rate, that the statistics etc. that they assemble compellingly suggest that a tendency to equality in a society is itself an overwhelmingly powerful force for improving that society, including the lot of everyone in the society (and especially of the poorer). If so, the implication is that a society that is more egalitarian—whether this is achieved by the poor being granted more goods, or by the rich being deprived of same, or some combination of these or by any other means—will be better off on all these measures (and thus, in fact on virtually all measures and in virtually all respects, the only apparent exception being suicide rates). This appears to pose a significant problem for the assumption that a Pareto-optimal change is invariably to be welcomed. For it appears to be Pareto-optimal for anyone to make a gain of goods

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<sup>2</sup> This is demonstrated in the section of *The Spirit Level* helpfully entitled “Everyone Benefits,” found on p.180f. The graph on p.185 is particularly striking and helpful. See also the graph on p.109.

<sup>3</sup> See the early chapters of *The Spirit Level* for detail.

<sup>4</sup> This point is, naturally, likely to be of great interest to readers of *CNS*. Wilkinson and Pickett (2014) argue that the harmful effects of status-competition intensified by inequality are a major driver of environmental damage.

provided others do not lose out. But if a Pareto-optimal change results in an increase in societal inequality, then Wilkinson and Pickett's being right would imply that such a change actually makes the society net-worse,<sup>5</sup> and is likely to harm *even the 'gainers'* from the 'Pareto-optimal' allocative change, as well as everyone else, relative to an alternative society where less inequality results from such an allocative change. (That is to say, counter-intuitively, Wilkinson and Pickett show us that even the materially better-off in a materially unequal society are worse off on a whole host of non-material measures that [fairly uncontroversially] matter in the overall calculus of 'how well their lives go' than the materially better-off in more materially egalitarian societies.' And similarly, a non-Pareto-optimal change (e.g., taking a good away from one individual without making any other individual better off) may well increase equality, and thereby be likely (according to Wilkinson and Pickett) to result in society as a whole improving. Remarkably, even the person who has lost a good might conceivably net-gain from the improvement across society as a whole that results. It would, at least, be hard to prove that they would not. (We shall return to this point about the complicating effect of the points being made here on the methodology of assessing what is Pareto optimal).

I deduce from the above that the work of Wilkinson and Pickett provides, *prima facie*, a fundamental challenge to the principle of Pareto-optimality<sup>6</sup>—a broadly<sup>7</sup> *empirical* challenge to it. That is to say, a challenge induced and facilitated by findings about how changes that are apparently Pareto-efficient from the point of view of increasing the income or wealth of some may nevertheless be clearly intuitively understood—*shown*—to be harmful.

How can this challenge be responded to? Does this challenge amount to a refutation of the assumption that Pareto-optimal changes are good? That would seem blatantly

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<sup>5</sup> This point of mine was partly anticipated by Patrick Shaw on p.360 of his "The Pareto Argument and Inequality" (1999).

<sup>6</sup> And thus my argument challenges what might be termed 'the standard view' of Pareto-optimality's incompatibility with egalitarianism, as found for instance in the following pieces, pieces that have various differences from one another; but none of them considers the irony that it might be that the only way of saving Pareto-optimality would be via egalitarianism: Tungodden (2003); Brown (2003); Fleurbaey and Tranoy (2003); and Temkin (2003). Of course, none of these authors had the benefit of reading *The Spirit Level*.

<sup>7</sup> Not exclusively, of course—one has to assume norms such as that being healthier is a good thing. But the norms that have to be assumed are pretty unexceptionable!

paradoxical (how can an allocative principle be empirically undermined?<sup>8</sup>); but what, if anything, is wrong with the reasoning that has taken us to it?

One obvious response would be to question or suspend the individualism implicit in the philosophy of Pareto and of modern economics in general. One could then suggest that it is not feasible to consider changes in distributions of goods only insofar as they affect individuals. The effect on society as a whole is more significant. This would, I think, be an intelligent response: What Wilkinson and Pickett's work appears to show is that we are social animals to a far greater extent than we normally suppose, and that material inequality, working in large part through its effects on status and on the quality of social relations, systematically undermines gains made by material enrichment considered only insofar as they affect individuals. *But* the methodological and conceptual implications of effecting this suspension of individualistic assumptions (not to mention the normative implications) for the philosophy of economics and beyond may be deep; I will return to this point.

This response, despite the 'depth-charge' that it may contain, would presumably be the response of most economists. For Pareto-optimality is usually defined over whatever the outcome is (taking *all* aspects into account). In that sense, it simply is unfalsifiable, not open to empirical refutation, so that in that sense my case, from Wilkinson and Pickett, does not, appearances notwithstanding, tell against the Pareto principle as such: If the transfer between rich and poor makes at least one person better off (taking *all* aspects/consequences of the transfer into account) without making anyone worse off, then it satisfies the principle. If it does not, then it does not. In the *Spirit Level* case, it is the transfer from the rich to the poor that is Pareto-improving. This is counter-intuitive in the sense that the immediate effect must be to make the rich person less well off in terms of income/wealth, but what the *Spirit Level* evidence suggests is that the rich person will tend to enjoy some other non-income benefits through the transfer which, at least across rich people in general, will more than compensate for the loss of income.

As already implied, however, there is a problem lurking now for the 'methodology' of Pareto optimality. Doesn't the Pareto principle, in order for it to be statable in its standard form at all, imply/presuppose that one can individuate effects which actually

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<sup>8</sup> Again, Shaw (1999) partly anticipates my argument here, in arguing that the apparent self-evidence of the Pareto principle is put into question by serious consideration of the nature of egalitarian societies. See p.361 thereof.

may be society-wide/systemic? Note that we spoke just now of the rich and poor as if they were individuals. But in a certain sense the harm to the poor (in fact, to everyone or virtually everyone, according to Wilkinson and Pickett) that Wilkinson and Pickett have identified is *not* a genuinely individuatable harm. It is not a harm that comes from not having the things that the rich have; it is a harm that comes from *being* not-rich, and more importantly simply from *being a member (any member) of a society* in which there is a large rich-poor divide.

In other words, it very often just isn't possible, at least in contemporary society, to do standard Pareto-style-*calculations* of the kind that are taught to first-year Economics students, etc. All the kinds of effects that can be appropriated to individuals (e.g. wealth, income) are overshadowed by society-wide effects.

To this, it will presumably be responded that the Wilkinson and Pickett approach makes it systematically hard to 'individuatae' effects only in the sense that it becomes hard to locate the benefit/loss associated with any change exclusively *at the level of* individuals. But that a particular individual might feel a harm because they belong to a group that is poor in relation to other groups in society, and because of the way this affects society as a whole, does not change the trivial/unarguable fact that it is still individuals who *experience* the harm. Of course, having to deal with society-wide effects complicates the analysis, but that is a different matter from undermining it at a fundamental conceptual level, it might be said. For, to put this differently, suppose you make more equal two individuals in a society that otherwise remains thoroughly unequal, then the non-pecuniary societal level effects probably won't arise and the Pareto principle might not have a view on the change.

But if one considers a wholesale transfer from rich to poor, then, if *The Spirit Level* is right, it will likely be *endorsed* by the Pareto principle!

Once more, this has the remarkable normative conclusion of making the Pareto principle, far from the 'conservative' device it is often taken to be, *a potential agent of radically-egalitarian/ socialist distributive justice*. And it certainly *does* greatly complicate the usual methodological perception of Pareto-efficiency as something 'computable' and 'decidable' at the level of individuals alone, in terms of transfers etc.

So, it may seem that re-allocation of money from the rich—"levelling down"—is likely to be harmful to the individuals who have their money redistributed from them, if one considers the change in their fortune one individual at a time. But this brings us once more to a crucial point: *even if this is so* at the level of individuals, still it is *not* so at the

level of groups or classes.<sup>9</sup> In other words, a change from a less equal to a more equal society may be Pareto-efficient provided we think at the latter level. Arguably, that *is* the appropriate level at which to think in a democratic polity that does not legislate about specific individuals but about groups/classes/societal-positions/roles (e.g. about people in various different financially-identified income-brackets). Redistributions that are a matter of public policy *do not occur* one individual at a time. Any alleged Pareto-based argument against such redistribution is artificially focusing our attention at the wrong level.

Another—clearly not unrelated—response to the challenge under consideration would be to reconsider the definition of “goods.” Perhaps when we allocate a material good to an individual, we should take more strongly into account that what we are ‘really’ allocating is: status.<sup>10</sup> But then we need in turn to take into account the *bads* that inegalitarian allocations of status bring immediately in their train, as revealed in Wilkinson and Pickett’s account. Bads such as higher homicide rates, lower rates of infant survival, lower levels of trust, lower levels of (self-reported) happiness, etc., etc. So then it would turn out that inegalitarian ‘Pareto-optimal’ (re-)allocations were not really Pareto-optimal after all. In other words, we would once again have ‘saved’ Pareto-optimality, but at what many of its adherents would see once more as a high ‘cost’. We would have saved Pareto-optimality at the cost of making it impossible to assess whether a change in material allocations of so-called ‘goods’ was really an allocation of *goods* at all. Once again we would have opened the door to its possibly even being Pareto-optimal to redistribute material ‘goods’ from the rich to the poor, and not just for reasons of marginal utility (a pound in the hand of a poor person typically buys more well-being-improvement than a pound in the hand of a rich person), but for the reason that the *Spirit Level* issues in—namely that the inequality itself is harmful.

My claim—that focusing purely on resource allocation in terms of maximising the amount of stuff that everyone, including the worse-off, has (even if some have much more than others), *ignores a collective context* that is harmful over and above the relative inequality of two individual game-players—is, I believe, a timely one. At a time of unprecedented inequality, wherein socio-political limits to growth are being tested/breached; and at a time of global resource constraints coming into play, as the neoliberal capitalist

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<sup>9</sup> To understand the empirical evidence on this point, see especially note 2 above.

<sup>10</sup> On this point, see Scanlon (2003). Rawls (see below for discussion of his theory of justice) also seeks to make an argument on the basis of status against large-scale inequality. See Read (2011a) for a response to this.

system crunches in a slow-motion train wreck into the ecological limits to growth. (I will return briefly to these two thoughts in the conclusion below.)

Again, this would seem to me an intelligent response, and exactly the kind of effect that Wilkinson and Pickett's work ought to have, should it prove robustly resistant to the criticism it has been exposed to. But again, the implications for the methodology and philosophy of economics and for normative political philosophy will, as I've sketched, be pretty profound. I wonder if we are ready for them.

I will now briefly explore one such implication, one of considerable import, for normative political philosophy.

As John Rawls, whose thought is still the dominant political philosophy of our time, explains in section 12 of his *Theory of Justice*, entitled "Interpretations of the Second Principle" [that is, of the principle of fair equality of opportunity and his celebrated "difference principle"], his second principle of justice, and in particular the 'difference principle' that licenses inequalities that are to the benefit of all, is an elaboration of and deliberately builds upon the idea of Pareto efficiency.<sup>11</sup> Rawls reasons that reasoners in his version of the contractalist 'state of nature,' his so-called 'original position,' would endorse the Pareto principle, because they would see nothing *wrong* with gains for some or all so long as none suffered, and he builds more onto the principle so that it is (he argues) just<sup>12</sup> (whereas Pareto efficiency *alone* is not, as he remarks on p.71—unless perhaps it gets reinterpreted as I suggested above it may have to be; see below for more on this point). Rawls goes beyond mere Pareto efficiency in a way that is nevertheless eminently compatible with it, and moreover very clearly—quite explicitly—based in it. His vision of the difference principle as a principle that will benefit all, should they move to the distribution that it recommends from a position of pure equality, *is precisely and explicitly a vision of Pareto-efficiency in action*. Rawls's criterion is in a way more stringent than Pareto's, in that, for (Rawlsian) justice to be done, there must be some benefit *to the worst off*, rather than just to anyone. But the one is built on the other. The one is a *specification*, one could even say a "*precisification*," of the other.

Essentially then, what Rawls does at this crucial point in his seminal text is the following. He argues that the 'least advantaged representative man' certainly mustn't be

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<sup>11</sup> Rawls prefers the term "efficiency" to "optimality," for reasonable reasons that, however, need not concern us here. See p.66 of his (1971).

<sup>12</sup> For details as to what this claim amounts to, see Haksar's classic 1972 *Analysis* article.

made worse off, and ought to be made better off. Thus, in the Rawlsian distribution we have a Pareto efficient distribution, relative to the position of initial equality that defined the original position. None can now be made better off without making him worse off.<sup>13</sup>

But do you see the irony of the situation, once we have re-thought Pareto-optimality from the perspective of Wilkinson and Pickett? Rawls initially justifies the move from equality to inequality on the grounds minimally of alleged Pareto-efficiency. But Wilkinson and Pickett, I have suggested, ought to be read as showing that moving from inequality toward equality will in fact be what is Pareto-efficient! Rawls gets it exactly wrong.

Rawls's difference principle is an (attempted) application of the Pareto principle to an initially equal distribution of goods. We need, if Wilkinson and Pickett are right, to reconsider, however, what we mean by 'goods,' as was discussed briefly above. And it turns out then that the argument that Rawls thought he could make for inegalitarianism for the good of all will not work. The difference principle collapses back into egalitarianism.

We have now seen that the apparently simple category of 'Pareto-optimality' is rather less simple than it appears to many of its employ-ers. One needs to consider carefully what the *currency* is of Pareto-optimality: To 'save' the Pareto principle, one may need to shift from the currency of (e.g.) income to that of level of equality itself.<sup>14</sup> But that, in turn, as I already indicated earlier, implies that something else is true, namely that we may have to suspend the apparently innocuous liberal-individualist assumption that first helped to motivate Pareto-style arguments.<sup>15</sup>

And so, to close, Pareto asks: What's the harm in making one person better off if no-one else is made worse off? Wilkinson and Pickett answer: Let us show you just what the harm is.... The Paretian most-likely responds: OK, I see your point; nevertheless, the Pareto principle can be 'saved' by expanding what we may rashly have assumed by overly

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<sup>13</sup> There is, of course, also a debate about whether Rawls really succeeds in giving a principle of justice at all, considering his dependence on Pareto. See especially p. 30 n.7 and 317-318 of Cohen (2008). In the present piece, I am seeking to be charitable to Rawls on this point, and arguing that he still takes a mighty hit from the argument that I have been considering and purveying, even when one is charitable in this way.

<sup>14</sup> An argument along these lines is made nicely by Jonathan Wolff (2001). Some changes can be Pareto-efficient on some currencies of better/worse off but those very same changes can also be Pareto-inefficient on other currencies of better/worse off.

<sup>15</sup> Again, Wolff's (2001) piece is helpful here; see especially p.5 thereof.



restricting what it was taken to be to be ‘worse off.’ It could be simply living in an unequal society, even if you have more stuff. This saving of the Pareto principle brings with it some serious methodological and normative surprises and complications.<sup>16</sup> For example, Rawls’s celebrated difference principle—which is itself an enhanced/complexified version of the Pareto principle—if it is to be saved in the same way, turns out *not* to justify inequality.

The achievement for which Rawls is most famous—the alleged justification, on liberal-progressive grounds, of economic inequality—now hangs by a thread, if that.

For if Rawls’s difference principle is to stand, and if what we have said about the Pareto principle is right, then—unless the Rawlsian is happy to regard the difference principle as extensionally equivalent not to there being economic inequalities (differences) but to there being none or as close to none as we can drive<sup>17</sup>—then Wilkinson and Pickett are going to have to be proved wrong.

And so we can now see that what has been accomplished in this paper could be helpfully summarised as follows:

1. Pareto argues very conservative conditions for improving initial allocations. His conditions nevertheless at least have the great virtue of seeming unarguable, in the sense that surely whatever satisfies those stringent conditions must be an improvement.
2. Rawls is sounder from a normative point of view because at least he raises questions about how the initial allocation was arrived at and (quite unlike Pareto) suggests that one should make an initial egalitarian assumption. And he demands that what is *just* is more than merely what is Pareto-efficient: Rawlsian justice requires that the worst-off benefit from changes for those changes to be deemed positively just. But I have reminded the

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<sup>16</sup> In future work I intend to explore these more fully. For, ultimately, mine is a critique of the kind of political or economic thinking that is exclusively concerned with making ‘optimal’ choices, where optimality is expressed in something like individualisable pecuniary terms.

In this context the Pareto principle is just an optimality requirement, in the sense that it is necessary in order to have a stable optimal choice. (The Pareto principle is, moreover, not only specifiable with respect to allocation problems but also to choice problems in general; thus, the potential impact of the line of thought I am pursuing in the present paper is wide indeed). An alternative is Pareto-optimal if no other alternative is unanimously preferred to it. Pareto optimality is reasonable under the presupposition that a formally optimal choice is what is being sought, but this is the framework that I am questioning. So the obvious apparently-completely-compelling force of the Pareto principle only emerges under presuppositions that I question. *Unless*, that is, we methodologically reinterpret the Pareto principle along the lines that I outline above: in which case the traditional mode of its application—to choice problems presented purely to individuals—no longer works, no longer applies. We have, rather, to choose *as a society*.

<sup>17</sup> This thought is close to Jerry Cohen’s critique of Rawls. See e.g. his (1995), as well as n.13 above. On how to take that critique within a broadly eco-socialist context, see Read (2011c).

reader that Rawls has fundamentally in common with Paretian optimality that, from an initial position of equality, changes to inegalitarian distributions—that is, the changes licensed by the difference principle—are justified [sic] in part by being Pareto-optimal.

3. But Wilkinson and Pickett place much more stringent conditions on if/how allocations are optimal, since they give strong evidence that what both Pareto and Rawls consider as the outcomes of the allocations, i.e., the breadth of their definitions of well-being, are much too individualist and narrow. Changes to an egalitarian distribution which, considered individually—which is the way that Pareto and Rawls consider such changes—are Pareto-optimal, are *not* socially optimal, and will in fact be harmful *to everyone*, but especially to the poor. And the poor are the very people who Rawls allegedly is trying to help by means of the difference principle.

4. The only way out of this deep problem for the Paretian and the Rawlsian alike is to give up the attempt to justify inequality via the difference principle. Which amounts to giving up the very achievement for which Rawls, the dominant figure in our time in political philosophy, is most renowned. What Rawls and Pareto have in common, then, turns out to be very surprising: if Wilkinson and Pickett are right, what they have in common is that they can only be saved at the cost to them of reducing to egalitarianism. Pareto, who sought to justify high levels of inequality via his optimality principle, and Rawls, who sought to justify some (actually, open-ended<sup>18</sup>) levels of inequality via his difference principle, now both face a powerful ‘empirical’ challenge.

And this helps put firmly back at the top of the agenda of political philosophy the possibility of an eco-socialism that would *think* as a society rather than individualistically, and that would call for fair egalitarian sharing as an alternative to environmentally damaging ‘economic growth.’

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<sup>18</sup> This conclusion as to what is implied by Rawls’s difference-principle argument is argued for in Read (2011a). Cf. also Read (2011b).

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