Correspondence

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An act utilitarian tries to maximize *expected utility*. This is the sum of possible benefits, minus possible costs, with each benefit or cost multiplied by the chance that his act will produce it. Two recent essays claim that, in this calculation, the act utilitarian should ignore very tiny chances. If this is so, he will have no reason to vote, support revolutionary movements, or contribute to countless other public goods.[1]

Why should he ignore very tiny chances? It may be thought that they cannot alter his conclusions. But this is false. Consider a presidential election in the United States. If I vote for the better candidate —call him *Superior*—there is a tiny chance that my vote will make a difference. On one estimate, the chance is 1 in 100 million.[2] The expected utility of my voting is then

$$\frac{\text{The net benefit to the average American from Superior's election} \times \text{the number of Americans}}{100 \text{ million}} - \text{the costs to me and others of my voting.}$$

1. Frank Miller and Rolf Sartorius, "Population Policy and Public Goods," *Philosophy & Public Affairs* 8, no. 2 (Winter 1979): 159-161; Allen Buchanan, "Revolutionary Motivation and Rationality," *Philosophy & Public Affairs* 9, no. 1 (Fall 1979): 65-66. Many other writers make this claim. My reply follows Brian Barry, *Political Argument* (London, 1965), p. 329.

2. William Riker and Peter Ordeshook, "A Theory of the Calculus of Voting," *American Political Science Review* 62 (March 1968). The estimate is difficult. It should not be assumed that any pattern of votes is as likely as any other.

Since there are 200 million Americans, this sum is likely to be positive. This will be so if Superior's election would on average bring to Americans a net benefit more than half as great as the costs of my voting. I must be pretty cynical to doubt this. Similar remarks apply to other public goods. If the act utilitarian does not ignore tiny chances, he will often have reason to make a contribution. So will any benevolent person who accepts this part of the utilitarian view.

It may be objected that it is *irrational* to consider very tiny chances. When our acts cannot affect more than a few people, this may be so. But this is because the stakes are here comparatively low. Consider the risks of causing accidental death. It may be irrational to give any thought to a one-in-a-million chance of killing one person. But if I was a nuclear engineer would I be irrational to give any thought to the same chance of killing a million people? This is not what most of us believe. If we are wrong, this needs to be shown.

According to the act utilitarian, we can usually ignore a very tiny chance. But this is not so when we may affect a very large number of people. This large number roughly cancels out the smallness of the chance. A similar point holds for very tiny benefits. We should not ignore such benefits when they would go to a very large number of people. This large number roughly cancels out the smallness of the benefits. The total sum of benefits may thus be large.

These two points are, intuitively, very different. Very tiny benefits may be imperceptible. And it is plausible to claim that an imperceptible benefit is no benefit at all. Though I think this claim mistaken, this needs argument.[3] But it is not plausible to claim that a very tiny chance is no chance at all.

3. See, for instance, Jonathan Glover, "It Makes No Difference Whether Or Not I Do It," *Proceedings of the Aristotelian Society, Suppl. Vol. 49* (1975): 172-176. Adapting Glover, we might appeal to *the Donor's Paradox.* Many wounded men lie out in the desert. Each of us has one pint of water, which he could carry to some wounded man. But if our pints are carried separately, much of the water would evaporate. If instead we pour our pints into a water-cart, there would be no evaporation. For rational altruists, this would be a better way of giving. Each wounded man would receive more water. But the pint that each of us contributes would now be shared between all these many men. It would give to each man only a single drop. Even to a wounded man, each drop of water brings a very tiny benefit. If we ignore such benefits, as imperceptible, we shall be forced to conclude that each of our contributions is now wasted.