
Egalitarianism and Population Change

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Introduction

Consider the following populations:

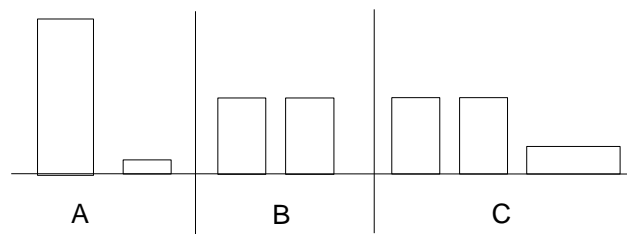


Diagram 1

The diagram above shows three populations: A, B, and C. The width of each block represents the number of people, and the height represents their lifetime welfare. These populations could consist of all the past, present and future lives, or all the present and future lives, or all the lives during some shorter time span in the future such as the next generation, or all the lives that are causally affected by, or consequences of a certain action or series of actions, and so forth. All the lives in the above diagram have positive welfare, or, as we also could put it, have lives worth living.¹ Population A consists of one group of people with very high welfare and a same sized group with very low positive welfare. B is a perfectly equal population of the

¹ We shall say that a life has neutral welfare if and only if it has the same welfare as a life without any good or bad welfare components, and that a life has positive (negative) welfare if and only if it has higher (lower) welfare than a life with neutral welfare. A hedonist, for example, would typically say that pain is bad and pleasure is good for a person, and that a life without any pain and pleasure has neutral welfare. This definition can be combined with other welfarist axiologies, such as desire and objective list theories (see below for a discussion of the “currency” of egalitarian justice). There is a number of alternative definitions of a life with positive (negative, neutral) welfare in the literature. For a discussion of these, see Arrhenius (2000) and Broome (1999). For a discussion of this issue in connection to the Repugnant Conclusion, see Fehige (1998), Tännsjö (1998), Arrhenius (2000), and Broome (2004). Also Cf. Parfit (1984), p. 358.

same size as A and with the same total and average welfare as A. C consists of the B-people and an extra group of people with lower positive welfare than the B-people.

How should we rank these populations? I take it that most of us would agree that B is better than A. The two populations are equally large and have the same total and average welfare. The only difference is that there is inequality in A whereas B is perfectly equal. Hence, A is worse than B since it is worse in regards to equality.²

Consider now population B and C. The number of best off people is the same in these two populations. The only difference between these two populations is that in the C, there is a number of “extra” people whose lives are of poor quality but worth living. Could the existence of these extra lives which are worth living make C worse than B? Some would say yes since the C-population is worse in regards to equality: There is perfect equality in B but inequality in C, and this inequality counts against C.³ Moreover, we have already granted that inequality can play a role in the ranking of populations since we appealed to it when we compared population A and B.

Some theorists deny, however, that egalitarian concerns are applicable in different number cases, that is, when the number of people differs in the compared populations. As Derek Parfit puts it, “[s]ince the inequality in [C] is produced by Mere Addition [as is the case in diagram 1], this inequality does not make [C] worse than B”.⁴ Moreover, there is a higher total of welfare in C, so even if we grant that C is worse in regards to equality, could this really outweigh the goodness of the extra welfare in C? Would it have been better if the “extra” people in C with lives worth living had never existed? It might strike one as implausible to claim that C is worse than B, merely because there are additional people with lives worth living. Hence, egalitarian considerations are not relevant in different number cases, or so it seems.

As this example and the title of this paper indicate, I’m going to discuss the role of equality in the evaluation of populations of different sizes in respect to their goodness. One

² Of course, I’m assuming here that we can compare populations such as A and B without any further information. Some theorists would deny this since they think an outcome can only be better or worse if it is better or worse for somebody, which might not be the case if A and B consist of different people. To apply these so-called “person affecting views”, we also need to know the identities of the individuals in the compared populations. I’ve discussed this approach at length elsewhere (Arrhenius 2000, 2003c, 2006) and showed that it entails very counterintuitive results, and I shall not dwell on it further here. For the purpose of the present paper, I shall assume that we can compare the value of populations without knowledge of the specific identities of the individuals in the compared populations (this approach is sometimes, misleadingly in my view, called the “impersonal view”).

³ C is also worse than B in respect to average wellbeing. However, Average Utilitarianism has a number of very counterintuitive implications in different number cases so we can safely put it to the side. See Arrhenius (2000), section 3.3, and Parfit (1984), section 143.

⁴ Parfit (1984), p. 425.

approach is to investigate rankings of populations in respect to equality alone, that is, how they can be ordered by the relation “is at least as equal as”. It would then be a further question how such a ranking would play in to the all things considered rankings of populations where we also have to consider other aspects such as the total wellbeing in a population.⁵ I shall take a more direct approach and discuss the relevance of egalitarian considerations for all things considered evaluations in some key cases. The field of population ethics has been riddled with paradoxes which purport to show that our considered beliefs are inconsistent in cases where the number of people and their welfare varies. Parfit’s well-known Mere Addition Paradox is a case in point. These paradoxes challenge at a fundamental level the existence of a satisfactory theory of our duties to future generations and intergenerational justice. Since consistency in our considered moral beliefs is, arguably, a necessary condition for moral justification, these paradoxes seem to force us to conclude that there is no theory regarding our moral duties to future generations and intergenerational justice which can be justified.⁶ The main question of my paper is whether egalitarian concerns can help us solve these paradoxes.

My result is going to be mainly negative. Although I think there is a *prima facie* plausibility to the claim that egalitarian considerations are applicable in different number cases and can solve the Mere Addition paradox, I shall contend that such considerations are not of much help in another paradox that involve logically weaker and intuitively more compelling conditions than the ones used in the former paradox. En route, we shall also discuss whether the so-called Priority View might be able to explain all of our purportedly egalitarian intuitions. I shall suggest that although there is a good case for this being true in same number cases, it isn’t true in different number cases. We shall also take a look at some different ways of conceptualising and measuring equality of welfare.

Before turning to the main questions of this paper, let me say a bit more about what kind of equality we shall discuss in this paper. Equality clearly plays a fundamental role in moral and political reasoning. Views about equality can differ immensely, however, depending on a number of factors: What kind of equality one is seeking (political, legal, moral, and so forth); the “currency” of equality (welfare, opportunity, rights, and so forth); among what kind of objects equality is supposed to hold (citizens, human beings, sentient beings, possible beings, groups, and so forth). It goes without saying that a full treatment of this subject is far beyond the reach of the present essay. We shall only consider one kind of equality: equality of

⁵ This is the approach in Temkin’s (1993) influential work on inequality.

⁶ For more on the connection between population ethics and intergenerational justice, see Meyer (2003) and Gosseries (2001, 2003). For a discussion of the possible meta-ethical implications of these paradoxes, see Arrhenius (2000), ch. 12.

welfare among people. The fundamental question in population ethics turns around how to rank populations where the number of people and their welfare varies.

This does not mean that we are committed to welfarism, the view that welfare is the only value that matters from the moral point of view. On the contrary, other considerations such as fairness, liberty, fulfilment of rights, autonomy, knowledge, cultural diversity, and the like may figure in the ranking of populations. We shall only assume that welfare at least matters when all other things are equal, that is, when the compared populations are roughly equally good in regard to other axiologically relevant aspects. Although we shall not defend this claim, this assumption is arguably a minimal adequacy condition for any moral theory.

Lastly, the concept of welfare used here is a broad one. For the present discussion, it doesn't matter whether welfare is understood along the lines of experientialist, desire or objective list theories.⁷ Hence, many of the views presented in the debate on the currency of egalitarian justice as alternatives to welfare, for example Rawls' influential list of primary goods, will fall under the heading of welfare as the term is used in this paper.⁸

The Mere Addition Paradox

Here's a version of Parfit's well-known axiological population paradox, the Mere Addition Paradox:⁹

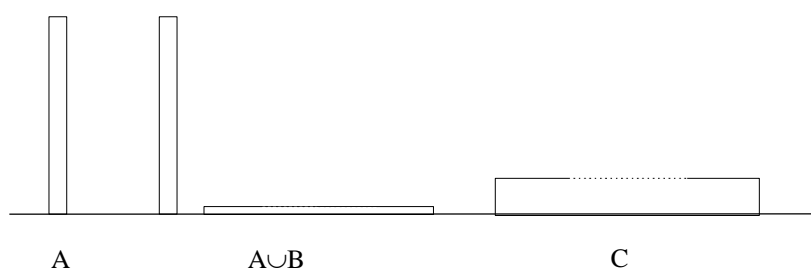


Diagram 2

⁷ For experientialist theories, see e.g., Sumner (1996), Feldman (1997, 2004), and Tännsjö (1998). For desire theories, see e.g., Barry (1989), Bykvist (1998), Griffin (1986), Hare (1981), Harsanyi (1992), Singer (1993), Raz (1986), and Goodin (1991). For objective list theories, see e.g., Braybrooke (1987), Finnis (1980), Hurka (1993), Rawls (1971), and Sen (1980, 1992, 1993).

⁸ For this debate, see Rawls (1971), Sen (1980, 1992, 1993), Dworkin (1981a, 1981b, 2000), Cohen (1989, 1993), Arneson (1989), and Nielsen (1996).

⁹ For a formal proof with slightly weaker conditions, see Arrhenius (2000), section 10.6. It should be stressed that the above paradox is not identical to Parfit's (1984), pp. 419ff, Mere Addition Paradox since it involves stronger assumptions. This version is similar to the one presented in Ng (1989), p. 240. A formal proof with slightly stronger assumptions than Ng's can be found in Blackorby and Donaldson (1991).

In the diagram above, A is a population of people with very high welfare, B is a much larger population than A but consisting of people with very low positive welfare, and C is a population of the same size as $A \cup B$ (that is, the population consisting of all the lives in both A and B). Everybody in C has very low positive welfare but they are all better off than the people in B. Moreover, there is perfect equality in C and the total and average welfare in C is higher than in $A \cup B$.

How should we rank these populations? Consider first population A and $A \cup B$. Since the B-people have lives worth living, many would agree that $A \cup B$ is at least not worse than A (see also the discussion above of population B and C in diagram 1). Here's a principle that expresses this view:

The Mere Addition Condition: An addition of people with positive welfare does not make a population worse, other things being equal.¹⁰

What about $A \cup B$ and C? Since there is perfect equality in C and higher total and average utility in C as compared to $A \cup B$, it seems reasonable to claim that C is better than $A \cup B$. Perhaps the following principle captures our intuition:

The Non-Anti Egalitarianism Condition: A population with perfect equality is better than a population with the same number of people, inequality, and lower average (and thus total) welfare, other things being equal.¹¹

Lastly, how should we rank A and C? Parfit's famous Repugnant Conclusion seems to express most people's intuition about the relative value of A and C:

¹⁰ Cf. Parfit (1984), p. 420, Hudson (1987), Ng (1989), and Sider (1991). We have included a *ceteris paribus* clause in the formulation of the Mere Addition Condition and the conditions below. As I indicated above, the idea is that people's welfare is the only axiologically relevant aspect which may be different in the compared populations, and that the compared populations are roughly equally good in regard to other axiologically relevant aspects. That welfare can vary implies that the number of people and the distribution of welfare can vary in the compared populations. See Arrhenius (2000, 2005).

¹¹ See Ng (1989), p. 238 for a similar principle. It seems to be unanimously agreed in the literature that inequality aversion of some kind is a prerequisite for an acceptable population axiology. Ng (p. 239, fn. 4), states that "Non-Antiegalitarianism is extremely compelling" and Carlson (1998), p. 288; claims that "[r]ejecting NAE [the Non-Anti Egalitarianism Principle] is ... a very unattractive option". Blackorby et al (1997), p. 13, hold that "weak inequality aversion is satisfied by all ethically attractive ... principles". Fehige (1998), p. 12, rhetorically asks "...if one world has more utility than the other and distributes it equally, whereas the other doesn't, then how can it fail

The Repugnant Conclusion: For any perfectly equal population with very high positive welfare, there is a population with very low positive welfare which is better, other things being equal.¹²

As the name indicates, Parfit finds this conclusion unacceptable. To avoid the Repugnant Conclusion, we could claim that A is better than C, a belief expressed by the following principle:

The Quality Condition: There is at least one perfectly equal population with very high positive welfare which is better than any population with very low positive welfare, other things being equal.

By now, we have contradicted ourselves. If C is better than $A \cup B$, and A is better than C, then by transitivity of “better than”, it follows that A is better than $A \cup B$. But we said that $A \cup B$ is not worse than A, that is, A is not better than $A \cup B$. Hence, these valuations imply a contradiction: A is better than $A \cup B$ and A is not better than $A \cup B$.

When faced with an impossibility result like the one just described, that is, a situation in which our beliefs entail a contradiction, a sensible response is to question the principles involved and try to find reasons to reject one of them. One could for example reject the Mere Addition Condition by claiming that $A \cup B$ is worse than A since there is inequality in the former population but not in the latter. So here is a case where welfarist egalitarian considerations might help us solve a population paradox. Let’s consider this idea in more detail.¹³

Welfarist Egalitarianism and the Priority View

One can distinguish two kinds of Welfarist Egalitarians: monists and pluralists. The former think that equality of welfare is the sole consideration when ranking populations, whereas the latter think that equality of welfare is one among other relevant factors in ranking populations. Probably, no one has ever held the position of the Monist Welfarist Egalitarian since it implies

to be better?” See also Sider (1991), p. 270, fn. 10. There are, however, reasons for rejecting the Non-Anti Egalitarianism principle. See Arrhenius (2000), section 6.2.

¹² See Parfit (1984), p. 388. My formulation is more general than Parfit’s apart from that he doesn’t demand that the people with very high welfare are equally well off.

¹³ For a survey of proposed solutions to the Mere addition Paradox, see Arrhenius (2000) and Arrhenius et al (2006).

clearly unacceptable conclusions. For example, it implies that a population with very high welfare and some inequality is worse than a population of equally tormented people. Monist Welfarist Egalitarianism violates the following very plausible condition:

The Weak Dominance Condition: If population A contains the same number of people as population B, and every person in A has positive welfare and every person in B has negative welfare, then A is better than B, other things being equal.

Monist Welfarist Egalitarianism has a number of other counter-intuitive implications in same-number cases, but let's leave those aside for now and turn to Pluralist Welfarist Egalitarianism. A reasonable pluralist limits the importance of equality of welfare so that her theory satisfies the Weak Dominance Condition. Thus, it is fair to ask: In which cases can equality of welfare make a difference in the ranking of populations? This is a tricky question that the Pluralist Welfarist Egalitarian has to answer.

As a matter of fact, I doubt that many people, on reflection, really believe that equality of welfare has a value in itself. This might seem surprising since equality is such an entrenched value in moral and political reasoning. Most of us believe in some kind of equality (I certainly do), such as equality before the law, equal rights, political equality, "similar cases should be treated equally", "everyone's interests matter and matter equally", and so forth.¹⁴ These ideas of equality are very important but different from the idea of equality of welfare. One reason why appeals to equality of welfare look attractive at first sight is, I think, that these other kinds of equality are important and reasonable considerations. There is nothing inconsistent, however, in endorsing those kinds of equality and rejecting appeals to equality of welfare.

It is also important to remember that to reject the idea that equality of welfare has value in itself is not to deny that equality of welfare may have good effects and that inequality may have bad effects. Inequality of welfare can undermine people's self-respect, cause envy and thus undermine the cohesion of society, be bad for the economy, and so forth. Consequently, inequality of welfare can diminish the general welfare in a population. As true as this might be, this is beside the point of the matter since if any such factors are at play, then the effects are already included in the specification of people's welfare. What we are considering is whether equality of welfare has a value in itself, apart from any instrumental value it might have in bringing about other good effects.

¹⁴ Kymlicka (1990), p. 4, suggests that all modern moral and political theories are based on some conception of equality.

Many might still find my claim about the role of equality of welfare in our moral reasoning perplexing since there are so many cases where we clearly appeal to exactly such considerations. Typically, they would point to cases like the following:

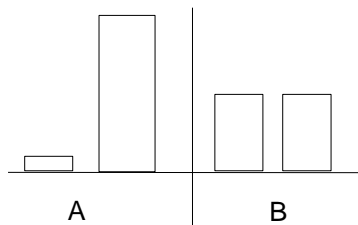


Diagram 3

The two populations A and B in diagram 3 are equally large and have the same total welfare. The only difference is that there is inequality in A whereas B is perfectly equal. Is it not obvious that B is better than A and does that not show that equality of welfare is a value in itself? Why would we otherwise rank B as better than A?

I certainly agree that B is better than A but this is not because I value equality of welfare as such, but because the worst off are better off in B than in A, and because I think that the loss of the best off is more than compensated for by the gain of the worst off. In other words, I think that we mistake intuitions about the value of equality of welfare with intuitions about priority of the welfare of the worst off. Roughly, the idea is that we should maximise welfare, but increases in welfare matter more, the worse off people are, and decreases in welfare matter less, the better off people are. Let us call this idea, following Parfit, the Priority View.¹⁵

Another way to express this intuition is to say that the contributive value of welfare is diminishing: If John has higher welfare than Wlodek, then an extra unit of welfare in Wlodek's life increases the value of a population more than an extra unit of welfare in John's life. One can achieve this result by applying a strictly increasing concave transformation to the numerical representation of people's welfare before summing them up.¹⁶ This description of the Priority View is not very exact but precise enough to explain cases, such as the one depicted in diagram 3, where the gain of the worst off equals the loss of the best off. Since,

¹⁵ Parfit's formulation of the Priority view is, however, different from mine: "Benefiting people matters more the worse off people are." See Parfit (1993), p. 57. For simplicity, I've added a maximising component to the statement of the Priority View above. As I shall discuss below, I don't think maximisation is a proper part of the Priority View.

according to the Priority View, the marginal value of the gain of the worst off is higher than the marginal value of the loss of the best off, the value of population B is higher than population A.

In general, if we are to distribute a fixed amount of welfare among a fixed number of people, the Priority View opts for a completely equal distribution. Consequently, in such cases our beliefs are equally well explained by the Priority View as by appeals to equality of welfare.¹⁷ Moreover, the Priority View implies the Weak Dominance Condition.

One of the adequacy conditions used in the Mere Addition Paradox above, The Non-Anti Egalitarianism Condition, seems to involve an appeal to equality. Certainly, people who believe in equality of welfare would endorse this condition. But so would those who believe in the Priority View. We could have called it the “Non-Anti-Priority Condition” or “Non-Priority to the Best off Condition”. It is, however, weaker condition than the Priority View since it is compatible with principles that give no extra weight to the welfare of the worst off, such as Total Utilitarianism.

Although it is reasonable to give extra weight to the welfare of the worst off, it is unreasonable to prioritise a small increase in the welfare of one slightly bad off person at any cost to the general welfare. An acceptable version of the Priority View should satisfy the following condition:

The Non-Extreme Priority Condition: There is a number n of lives such that a population consisting of n lives with very high welfare and a single life with slightly negative welfare, is at least as good as a population consisting of $n+1$ lives with very low positive welfare, other things being equal.¹⁸

Roughly, principles that violate the Non-Extreme Priority Condition imply that the slightest gain in welfare for one person with negative welfare outweighs a very large loss in welfare, from very high welfare to very low positive welfare, for *any* number of people. Unsurprisingly, Monist Welfarist Egalitarianism violates this condition but since it is a good illustration of the condition, let’s take a closer look. Assume that A consists of a very large

¹⁶ See Broome (1991), ch. 9. This way of expressing the Priority View is analogous to the idea of diminishing marginal value used in economics: The more money a person already has, the lesser good an extra pound will do her.

¹⁷ Another explanation, suggested to me by Axel Gosseries, as to why people believe they are egalitarians even if they actually are prioritarians is that in the majority of practical cases, policies advocated by one or the other coincides, since the reduction of inequalities generally benefit the worst off.

number of people with very high welfare and one person with slightly negative welfare. In B, we have a small increase in the welfare of the worst off in A but a large decrease in welfare of all the best off in A: everybody has the same very low positive welfare in B. According to Monist Welfarist Egalitarianism, B is better than A. Of course, this would hold even if there was no increase in the welfare of the worst off and everybody else's welfare was decreased to slightly negative welfare. Again, a reasonable Pluralist Welfarist Egalitarian reduces the importance of equality to avoid these kind of conclusions.

A well-known egalitarian principle that violates the Non-Extreme Priority Condition is the Maximin Principle. Maximin ranks populations according to the welfare of the worst off: The lower the welfare of the worst off, the worse the population, and if the worst off enjoy the same welfare in two populations, then these populations are equally good. In other words, Maximin gives maximal priority to the welfare of the worst off. The same holds true for Maximin's cousin, Leximin. According to Leximin, if the worst off in A are better off than the worst off in B, then A is better than B. If the worst off in A and B have the same welfare, then A is better than B if the second worst off in A are better off than the second worst off in B, and so forth.¹⁹ In cases where the worst off in the compared populations is a person with slightly negative welfare, both of these principles violate the Non-Extreme Priority Condition. Maximin and Leximin do not only rule out trade-offs in such cases, but in all cases where a gain for the worst off is at stake.

I think that the Priority View can explain our beliefs about distribution of welfare in same-number cases at least as well as an appeal to equality. We have not properly shown this, however, since we have only looked at cases which involve comparisons of perfectly equal populations with unequal populations. One also has to consider cases where both of the compared populations involve inequality of welfare. To be applicable to such case, the prioritarian has to specify the degree of priority given to the worse off, whereas the Welfarist

¹⁸ This is a slightly simplified version of the condition with the same name presented in Arrhenius (2000) where a formalised statement of this condition also can be found.

¹⁹ How does Leximin compare populations of different size? As I take Leximin, one compares the worst off in both populations, then the second worst off, and so forth, until one has compared all the lives in the smaller population with some life in the larger population. For example, let's say that A consists of two lives with one unit of welfare and B consists of one life with one unit of welfare. On my interpretation of Leximin, A and B are equally good. On another interpretation, suggested by an anonymous referee, one adds neutral life to the smaller population to get a population of the same size as the larger population, and then the comparison between the two same sized populations determines the ranking of the original populations. In my example, we should compare A and B*, where B* consists of one life with one unit of welfare and one life with neutral welfare. This version of Leximin thus ranks A as better than B. I find this interpretation of Leximin somewhat more unattractive than the one that I propose above since it implies, for instance, that a population of one billion lives with very high welfare is *worse* than a population of one billion and one lives with very low positive welfare. I'm indebted to an anonymous referee for reminding me about this ambiguity in the formulation of Leximin.

Egalitarian has to devise some method of measuring degrees of inequality.²⁰ There are a number of different suggestions, more or less convincing, but it would take us too far away from the main topic to consider them all.²¹ Let us instead turn to egalitarian and prioritarian considerations in different number cases.

Egalitarianism and Different Number Cases

Is there a reasonable egalitarian objection to the Mere Addition Condition? Consider population A and $A \cup B$ again. According to Maximin and Leximin, $A \cup B$ is worse than A.²² However, as we saw above, we have to reject these principles since they violate the Non-Extreme Priority Condition. Still, it isn't unreasonable to claim that $A \cup B$ is more unequal than A, and that $A \cup B$ is in that respect worse than A. For example, according to Temkin, "the ultimate intuition underlying egalitarianism is that it is bad ... for some to be worse off than others through no fault of their own".²³ Clearly, this is the case in $A \cup B$ since the B people have not done anything to deserve to be worse off than the A-people. Moreover, as suggested by Temkin, one might hold the view that the greater the number of worst off, the worse the inequality.²⁴ Consequently, since the B-population in the Mere Addition Paradox has to be enormous to reach the C population by redistribution of welfare in the $A \cup B$ -population, the inequality in $A \cup B$ would thus be considerable.

The crucial question, however, is whether this inequality makes $A \cup B$ worse than A all things considered. Since $A \cup B$ is clearly better than A in respect to total welfare, the pluralist egalitarian has to limit the importance of total welfare relative to the importance of inequality to reach this judgment. There are, I surmise, three plausible ways the pluralist egalitarian could do this. Firstly, she could put such a negative value on inequality that the negative value of the resulting inequality from the addition of one life with very low positive welfare to a high welfare population outweighs the resulting extra total welfare. This view in combination with

²⁰ This might come to the same thing since, as argued by Fleurbaey (forthcoming), for any version of the Priority View, there is an extensionally equivalent version of Welfarist Egalitarianism.

²¹ For arguments to the effect that the Priority View *cannot* explain our beliefs about distribution of welfare in same-number cases better than egalitarianism, see Temkin (1993, 2003a). There has been a quite intensive discussion during the last few years of the pro and cons of egalitarianism and the priority view in same number cases, and whether they really are distinct views. See, among others, Broome (forthcoming), Crisp (2003a, b), Fleurbaey (forthcoming), Persson (2001), Rabinowicz (2002), Temkin (2003b), Tungodden (2003), and Vallentyne (2000).

²² Cf. fn. 19.

²³ Temkin (1993), p. 200 and elsewhere.

²⁴ See Temkin (1993), p. 200-2. Cf. Persson (2003) for a similar view.

the idea that the negative value of inequality increases linearly with the number of worse off lives yields the sought after judgment (view 1 in diagram 4).

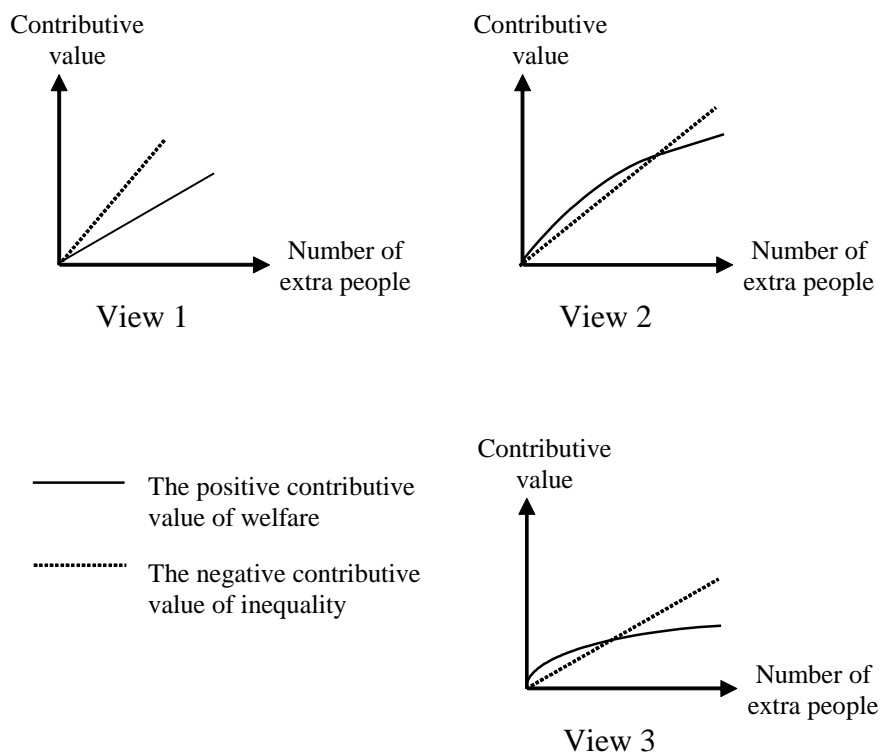


Diagram 4

A more moderate egalitarian could claim that the contributive value of extra total welfare in lives at a low level of well-being diminishes so that even if there is no upper boundary to this value, it will at some point be overtaken by the negative value of the increased inequality (view 2 in diagram 4). Lastly, the pluralist egalitarian could put an upper limit to the value of total welfare that comes in lives with very low welfare which is approached asymptotically (the value of extra welfare is always increasing but it cannot go beyond a certain limit). If the negative value of inequality has no upper boundary, or an upper boundary that is higher than the upper boundary of the value of total welfare, it will at some point overtake the bounded value of total welfare that comes in lives with very low positive welfare (view 3 in diagram 4). What all of these views have in common is that the addition of a certain number of lives or more with very low positive welfare to a population with very high welfare will have negative contributive value, and more negative the greater the number of added lives, because of the negative value of the resulting inequality. Consequently, such

additions make the ensuing population worse than the original because of the inequality introduced.

Clearly, these proposals have to be tested against other cases for us to be able to judge their general appeal and my hunch is that they will run into trouble (I shall point out one problem for these views in the last section). For the purpose here, however, it is sufficient to note that these views have an intuitive appeal from an egalitarian perspective and that there is a *prima facie* case that egalitarian concerns can solve the Mere Addition Paradox.

The Priority View and Different Number Cases

What implications would the Priority View have in regard to the Mere Addition Condition? As a matter of fact, as we have stated the Priority View, it implies the Mere Addition Condition. Moreover, in diagram 2 it ranks $A \cup B$ as better than A , and C as better than A , since it ranks populations according to the total sum of people's transformed welfare. Not only that, it will also imply the Repugnant Conclusion with a vengeance since it will rank C as better than A even in cases where the total welfare in C is less than in A .²⁵

Here's a simple illustration. Assume that the welfare per person is a hundred units in A and one unit in C and that the population size of A and C are n respectively $20n$. Then the total welfare in A is $100n$ whereas the total welfare in C is $20n$. Hence, A is better than C both in respect to total and average welfare. Assume now that we use the square root function as the prioritarian transformation function. According to this version of the Priority View, the value of A is $n\sqrt{100} = 10n$ and the value of B is $20n\sqrt{1} = 20n$. Analogous results can be shown for any choice of the strictly increasing concave transformation function. Hence, it seems that the Priority View implies that an outcome with lower total and average positive welfare can be better, which is quite bizarre.

But of course, using summing as an aggregation method is as contentious with transformation of individual welfare as without it. We assumed it above just for reasons of simplicity. The core idea of the Priority View – that gains in welfare matter more, the worse off people are, and losses in welfare matter less, the better off people are – can be combined with other aggregation methods, such as, for example, the one used in Average Utilitarianism. Combined with this aggregation method, the Priority View would yield the same results in same-number cases as the ones described above, whereas its results in different-number cases would be pretty much the same as those of Average Utilitarianism, e.g., it would rank A as

²⁵ Holtug (1999) makes the same point.

better than $A \cup B$. The same holds for a combination of the Priority View with other aggregation methods.²⁶

No specific method for aggregating the (transformed) welfare of different lives seems to follow from the Priority View, so it is hard to see how this idea could explain our evaluation of different-number cases such as the one discussed here. Whatever aggregation method one combines with the Priority View, the main work in different-number comparisons will be done by the aggregation method, not by the Priority View.²⁷ Hence, there is little hope of finding the key to the solution of the problems of population ethics in the prioritarian idea.

It seems that the Priority View is an idea mainly about how to distribute welfare among a fixed number of people. Since welfarist egalitarians do have something to say about the Mere Addition Condition, it follows that there seems to be some intuitions about equality of welfare that the Priority View cannot explain away: In different number cases, Welfarist Egalitarianism and the Priority View come apart.

A Harder Paradox

So far, so good, for the pluralist egalitarian. However, there are problems ahead. As I've showed elsewhere, one can construct impossibility results with logically weaker and intuitively more compelling conditions than the one used in the Mere Addition Paradox.²⁸ Those results don't make use of the controversial Mere Addition Principle. Roughly speaking, the Mere Addition conditions are replaced by two other conditions.²⁹ Let's look at the first one of these conditions:

The Weak Quality Addition Condition: For any population X, there is at least one perfectly equal population with very high positive welfare such that its addition to

²⁶ For a survey of these alternative aggregation methods, see Arrhenius (2000), ch. 4-6, 8, and Arrhenius et al (2006).

²⁷ Hence, I find Holtug's (1999) argument to the effect that the Priority View leads to worse Repugnant Conclusions as compared to Total Utilitarianism question begging. All we can say is that a summing version of the Priority View leads to worse Repugnant Conclusions than Total Utilitarianism. Holtug has recently abandoned his (1999) argument against the Priority View and moved to a position similar to mine, see Holtug (2007).

²⁸ See Arrhenius (2000, 2001). For an impossibility theorem with even weaker assumptions, see Arrhenius (2003a). These works are available on the web at <http://people.su.se/~guarr/>.

²⁹ Apart from the two conditions discussed below, the impossibility theorem involves a weak non-priority to the best off condition, a weak egalitarian dominance condition, and a weaker version of the Non-Extreme Priority Condition discussed above.

X is at least as good as an addition of any population with very low positive welfare to X, other things being equal.³⁰

Here's a case where an egalitarian might object to the Weak Quality Addition Condition:

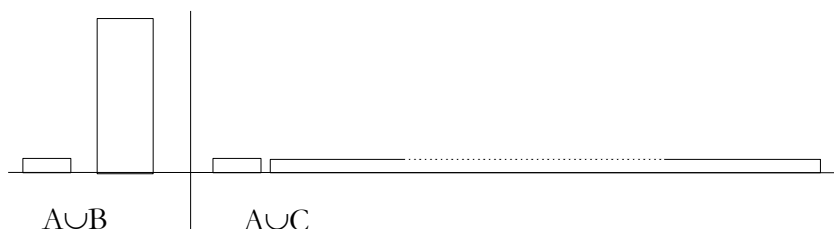


Diagram 5

According to the Weak Quality Addition Condition, for any population X, there is at least one perfectly equal population with very high positive welfare such that its addition to X is at least as good as an addition of any population with very low positive welfare to X. Assume that population B in diagram 5 is such a high welfare population in relation to population A. In population $A \cup B$, B has been added to population A with very low positive welfare. In $A \cup C$, instead of population B, the very large population C with the same very low positive welfare as A has been added. According to the Weak Quality Addition Condition, $A \cup B$ is at least as good as $A \cup C$. One might object to this valuation and hold that $A \cup C$ is better than $A \cup B$, since there is inequality in the latter population whereas there is perfect equality in the former population.

A Monist Welfarist Egalitarian would rank $A \cup C$ as better than $A \cup B$. As we have seen, this view has highly counter-intuitive implications in same-number cases. Its implications in different number choices are no different. Assume that the A-people and the C-people in diagram 5 don't enjoy positive welfare but very negative welfare – they all have terrible lives. According to the Monist Welfarist Egalitarian, it would be better to add the terrible C-lives rather than the excellent B-lives since the resulting population of the former addition would be perfectly equal.

A Pluralist Welfarist Egalitarian could avoid this conclusion by also assigning importance to the total welfare. Can the pluralist give us a good reason to discard the Weak

³⁰ For a formalised statement of this condition and the one discussed below, see Arrhenius (2000, 2001).

Quality Addition Condition? I do not think so. Indeed, one can hold that $A \cup C$ is in one respect better than $A \cup B$ since there is perfect equality in the former population but not in the latter one, but it seems clear that this aspect is outweighed by the greater quality of life in the B-population as compared to the C-population. If a Pluralist Welfarist Egalitarian theory put such a value on equality of welfare that it implied that $A \cup C$ is better than $A \cup B$, then that would constitute a good argument against that version of Welfarist Egalitarianism, I surmise. An example of the case described in diagram 5 could be that the A-people either have children who enjoy very high welfare or that they have more children with the same poor welfare (perhaps because of lack of resources) as themselves. It seems indeed odd that the prospective parents should opt for the latter alternative for reasons of equality.

More importantly, there is further problem for the Pluralist Welfarist Egalitarian that rejects Weak Quality Addition Condition. Consider the following population:

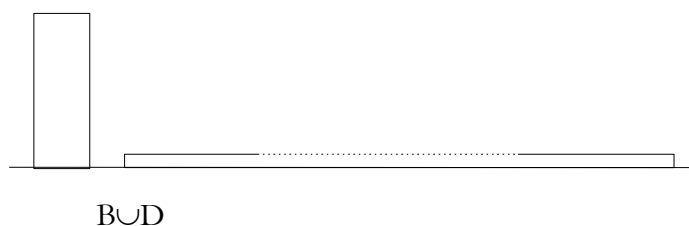


Diagram 6

In diagram 6, D is a population with the same very low positive welfare as population A and C in diagram 5. The size of $B \cup D$ equals $A \cup C$. Relative $B \cup D$, $A \cup C$ is an extreme case of levelling down. Recall that population B can be as big and enjoy as high positive welfare as we suppose. Thus, to avoid implying extreme versions of levelling down, a reasonable Pluralist Welfarist Egalitarian has to rank $B \cup D$ as better than $A \cup C$. Assume now that we reject the Weak Quality Addition Condition and rank $A \cup C$ as better than $A \cup B$.³¹ By transitivity, it follows that $B \cup D$ is better than $A \cup B$.

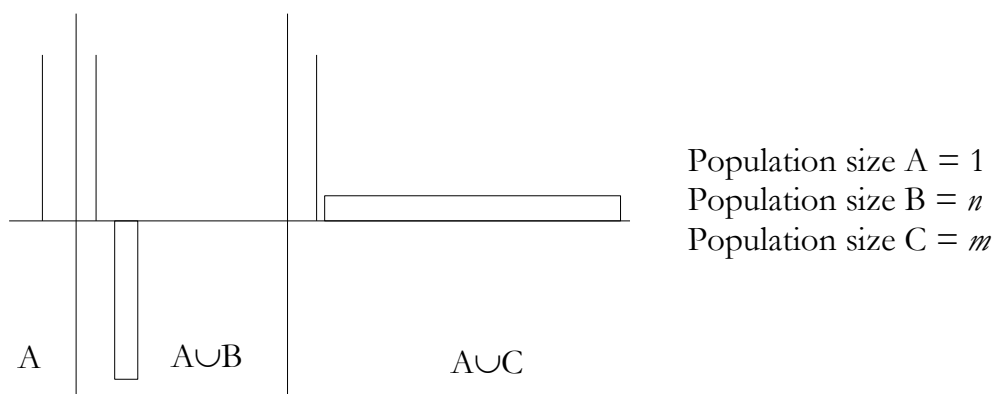
Now, recall that to reject the Mere Addition Principle in order to avoid the Mere Addition Paradox, the Pluralist Welfarist Egalitarian had to hold the view that the greater the number of worst off, the worse the inequality, and that the negative value of inequality at some point overcomes the positive value of extra positive welfare that comes in lives with

very low positive welfare. Since C can be of any finite size, D can also be of any finite size. Thus, we can assume that the point where the negative value of inequality overcomes the positive value of extra positive welfare has already been reached with population D relative to population B . Moreover, since D can be of any finite size, we can assume that D is bigger than A . The difference between $B \cup D$ and $A \cup B$ is thus that there are much more lives with very low positive welfare in $B \cup D$ as compared to $A \cup B$. Hence, according to the version of Pluralist Welfarist Egalitarianism that avoids the Mere Addition Paradox, the addition of D to B has negative contributive value and a greater negative contributive value than the addition of A to B (which might not be negative at all). It follows that $B \cup D$ is worse than $A \cup B$, which contradicts the result we reached above by rejecting the Weak Quality Addition Condition. Consequently, a Pluralist Welfarist Egalitarian that wants to avoid extreme levelling down and solve the Mere Addition Paradox cannot reject the Weak Quality Addition Condition.

Here's the second condition:

The Weak Non-Sadism Condition: There is a negative welfare level and a number of lives at this level such that an addition of any number of people with positive welfare is at least as good as an addition of the lives with negative welfare, other things being equal.

Might a Welfarist Egalitarian object to the Weak Non-Sadism Condition? Let's say that A consists of one life with very high welfare, B consists of great number n of lives with very negative welfare such that the antecedent of the Weak Non-Sadism Conditions is satisfied, and C consists of an even larger number m of lives but with very low positive welfare.



³¹ I am disregarding the possibility of incommensurability here. For a discussion of incommensurability in

Diagram 7

The difference between population $A \cup B$ and $A \cup C$ is thus that in the former population, n lives with very negative welfare has been added to A , whereas in the latter population, a larger number of lives m with very low positive welfare have been added to A . Consequently, according to the Weak Non-Sadism Condition, $A \cup C$ is at least as good as $A \cup B$. Now, someone might claim that $A \cup B$ is better than $A \cup C$, since it is better in regard to equality of welfare. It is, of course, by no means apparent how this could be the case. Here we have to compare two populations that both involve inequality. Hence, how to evaluate these populations from a Welfarist Egalitarian perspective all depends on how to measure degrees of inequality. On one measure – the difference in welfare between the best off and worst off – $A \cup B$ is worse than $A \cup C$ in regard to inequality. Moreover, the worst off are worse off in $A \cup B$ as compared to $A \cup C$. But, as we saw above, according to another view entertained by Larry Temkin, what matters, among other things, is the number of the worst off: the greater the number of worst off, the worse the inequality.³² According to this view, if C is sufficiently larger than B , then $A \cup B$ is better than $A \cup C$ in regard to inequality. On still another view, proposed by Parfit, the reverse holds true: If the proportion of worst off increases, then the inequality decreases.³³

Since it is Temkin's suggestion that might challenge the Weak Non-Sadism Condition, let's take a closer look at it. Unfortunately, Temkin never states his theory in a precise manner. Instead, he presents his view in a series of arguments against what he calls the Standard View:

The Standard View: Proportional variations in the number of better- and worse-off do not affect inequality.

population ethics, see Arrhenius (2000), section 5.1.1, Broome (2004), ch. 12., and Blackorby et al (2005), ch. 7.

³² See Temkin (1993), p. 200-2. Cf. Persson (2003) for a similar view.

³³ Parfit compares two populations, $A+$ and Alpha. $A+$ consists of two groups of people of the same size, one with 100 units of welfare per person, and one with 50 units of welfare per person. Alpha consists of one group of the same size as $A+$ but with 105 units of welfare per person and a very large group of people with 45 units of welfare per person. He writes: "The inequality in Alpha is in one way worse than the inequality in $A+$, since the gap between the better-off and the worse-off people is slightly greater. But in another way the inequality is less bad. This is a matter of the relative numbers of, or the *ratio* between, those who are better-off and those who are worse-off. Half of the people in $A+$ are better off than the other half. This is a worse inequality than a situation in which almost everyone is equally well off, and those who are better off are only a fraction of one per cent. - - - All things considered, the natural inequality in Alpha is not worse than the natural inequality in $A+$." Parfit (1986), p. 156.

According to the Standard View, a population D with one person with very high positive welfare and ten with very low positive welfare is as unequal as a population E with ten persons with very high positive welfare and a hundred persons with very low positive welfare. As Temkin points out, this position can be challenged: "...if it is bad for one person to be worse off through no fault of his own, it should be even worse for two people to be in such a position. After all, to paraphrase the basic insight of the utilitarians, more of the bad is worse than less of the bad, and in many respects there is, in the end, more of what the egalitarian regards as bad in [E] than in [D]".³⁴ Temkin concludes from this and other arguments that we have to reject the Standard View.

No clear implications follows from this, however, regarding the comparison of the inequality in $A \cup B$ and $A \cup C$ since these populations do not only differ in regard to proportional variations of the number of best and worst off, they also differ in respect to other egalitarian considerations. As pointed out above, $A \cup B$ is worse than $A \cup C$ in regard to the difference in welfare between the best and worst off. Moreover, the worst off are worse off in $A \cup B$ than in $A \cup C$, and they have very bad lives. Actually, it isn't clear that Temkin would consider $A \cup B$ worse than $A \cup C$ in regard to inequality since this conclusion is analogous to a devastating objection that Temkin directs against his own proposal:

The Repellant Conclusion: For any world F, let F's population be as large (though finite) as one likes, and let the gaps between F's better- and worse-off be as extreme as one likes, there will be some unequal world, G, whose population is "sufficiently" large such that no matter how small G's gaps between the better- and worse-off might be G's inequality will be worse than F's (even if everyone in G is better off than everyone in F).³⁵

In other words, if a theory implies that $A \cup B$ is worse than $A \cup C$ in regard to equality, then that might even be considered as an argument against that particular theory of equality.

Secondly, even if Temkin's theory in the end would imply that $A \cup C$ is less unequal than $A \cup B$, he would probably not consider $A \cup C$ better than $A \cup B$ *all things considered*, since he's not a Monist Welfarist Egalitarian. For example, he considers and rejects the following argument directed against his view of equality:

³⁴ Temkin (1993), pp. 200, 201.

³⁵ Temkin (1993), p. 218.

...[One] may object that if proportional increases worsen inequality, then proportional decreases should improve it. Thus the egalitarian should favor a *Shrinking World*. More particularly, for any pattern of inequality, the *best* world will be the one with the *smallest* number of people in the better- and worse-off groups consistent with that pattern. This, it may be contended, is absurd. --- Surely, it *would* be absurd to claim that a two-person world with the same pattern of equality as A and B [two worlds with much more people]...would be better than A and B *all things considered*. --- Put simply, I am unpersuaded that this objection seriously challenges [my arguments]... --- Why shouldn't the egalitarian insist that the former worlds are better than the latter one[s] regarding inequality, but admit that they are worse *all things considered*?"³⁶

To sum up: It is not clear which one of populations $A \cup B$ and $A \cup C$ is better in regard to equality since different reasonable egalitarian considerations pull in different directions: There is a bigger gap between the best off and the worst off, and the worst off are worse off in $A \cup B$ as compared to $A \cup C$; on the other hand, there is a greater number of worst off in $A \cup C$. Our intuitive *all things considered* ranking of these two populations is, however, pretty robust – intuitively, it seems clear that an addition of a huge number of lives with very negative welfare cannot be better than an addition of people with positive welfare. An argument to the effect that we should give up this intuitive judgement must be very convincing. As we have seen, egalitarian concerns are pulling in different directions and are thus indecisive in cases such as these. Consequently, egalitarian concerns can hardly give us any reason to change our all things considered ranking of $A \cup B$ and $A \cup C$.

One might object to the argument above by imagining an analogous argument against utilitarianism. Consider a population A that contains more pleasure (which is some utilitarians' idea of welfare) and population B that contains more desire fulfilment (which is some other utilitarians' idea of welfare). A utilitarian that conceives of welfare as pleasure would thus rank A as better than B, whereas a utilitarian that conceives of welfare as desire fulfilment would rank B as better than A. We could then conclude, following the style of the argument above,

³⁶ Temkin (1993), pp. 216-7.

that appeals to maximising utility are indecisive in such cases, which clearly isn't a good argument.³⁷

The above argument is not, however, analogous to the argument I made above. I made an epistemic point about what is a reasonable stance when one and the same person's considered intuitions are pulling in different direction. I suggest that this actually is the case for most of us in regards to the welfarist egalitarian intuitions considered above. These intuitions points in different directions and none strongly outweigh the others. In other words, they do not together give any strong support for ranking the considered populations one way or the other. Another intuition (the all things considered intuition) strongly points in one direction. Hence, it is reasonable to rank the populations according to the latter intuition, and the former intuitions are in that sense indecisive in such cases. The former intuitions are, so to speak, dwarfed by the strength of the latter intuition. The analogous case would be someone who considered *both* maximisation of desire fulfilment and pleasure as relevant when ranking populations A and B but who also, taking other aspects into account, has a strong all things considered intuition that, say, A is better than B. If the reasons stemming from considerations of maximisation of desire fulfilment and pleasure are roughly equally strong, one pointing in favour of A and the other pointing in favour of B, then these considerations doesn't give her a strong reason to prefer anyone of the populations, and thus to change her all things considered judgment.

Conclusions

Population ethics, with cases involving population change, is one of the hardest, if not the hardest, challenge for moral theory. The Priority View might be able to explain all the distributive intuitions that we have in same number cases but seems to have nothing to add to the discussion of different number cases. Welfarist Egalitarians, on the other hand, do have something to say about different number cases and can help us solve the Mere Addition Paradox. Hence, there seems to be some intuitions about equality of welfare that the Priority View cannot explain away. However, egalitarian considerations cannot yield convincing arguments against the adequacy conditions involved in the impossibility result discussed above. Thus, the paradoxes of population ethics cannot be solved by an appeal to welfarist

³⁷ This argument was suggested by an anonymous referee.

egalitarianism, and our theories regarding moral duties to future generations and intergenerational justice are still on shaky ground.³⁸

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³⁸ I would like to thank Krister Bykvist, Lars Bergström, John Broome, Erik Carlson, Sven Danielsson, Marc Fleurbaey, Axel Gosseries, Tom Hurka, Lukas Meyer, Wlodek Rabinowicz, Howard Sobel, Wayne Sumner, Folke Tersman, Olle Torpman, Torbjörn Tännsjö, and two anonymous referees for their very helpful and detailed comments. Thanks also to the Oxford Uehiro Centre for Practical Ethics and Jesus College, Oxford, for being such generous hosts during some of the time when this paper were written. Financial support from the Bank of Sweden Tercentenary Foundation and the Swedish Collegium for Advanced Study is gratefully acknowledged.

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