
Egalitarian Concerns and Population Change

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I. Introduction

Consider the following populations:

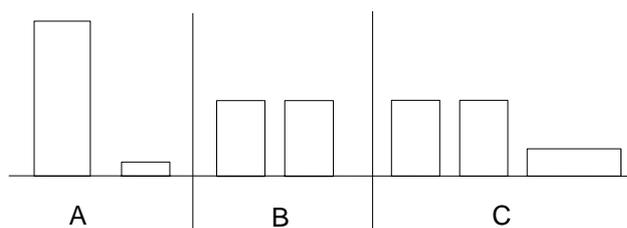


Diagram 1

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 We shall also assume that all the people in the diagrams deserve their welfare equally much.

¹ We shall say that a life has *neutral welfare* if and only if it is equally good for the person living it as a neutral welfare component, and that a life has *positive (negative) welfare* if and only if it has higher (lower) welfare than a life with neutral welfare. A welfare component is neutral relative a certain life x iff x with this component has the same welfare as x without this component. A hedonist, for example, would typically say that an experience which

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 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.

One might ask how we should rank these populations in terms of betterness, that is, how these populations are ordered by the relation “is at least as good as all things considered”. 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

It might not be as clear how we should rank 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 Others would deny this. 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?

is neither pleasurable nor painful is neutral in value for a person and as such doesn't increase or decrease the person's welfare. The above definition can of course be combined with other welfarist axiologies, such as desire and objective list theories (see below for a discussion of the “currency” of egalitarian justice). For a discussion of alternative definitions of a neutral life, many of which would also work fine in the present context, see Arrhenius (200a, 2011, ch. 2 and 9). See also Broome (1999, 2004), and Parfit (1984, p. 357-8 and appendix G). Notice that we actually don't need an analysis of a neutral welfare in the present context but rather just a criterion, and the criterion can vary with different theories of welfare.

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 these approaches at length elsewhere (Arrhenius 2000a, 2003, 2009b, 2011) and showed that, at best, they don't help much in solving problems in different number cases, so I shall not dwell on them 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, e.g., Arrhenius (2000ab, 2011), and Parfit (1984), section 143.

⁴ Parfit (1984), p. 425.

I've discussed the role of equality in the evaluation of populations of different sizes in respect to their all things considered goodness elsewhere and this is not the main topic of the present paper.⁵ Rather, following in the tracks of Larry Temkin's influential work on inequality, I am interested in the more limited topic of rankings of populations in respect to the value of equality alone, that is, how they can be ordered by the relation "is at least as good as with respect to egalitarian concerns". It is then 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. For example, whereas it seems clear that population B is better than A since B is better in respect to both equality and welfare, it is, as we pointed out, unclear whether the inequality in C outweighs the goodness of the extra welfare so as to make C worse than B.

One should also distinguish the current issue with the project of ranking populations in terms of the primarily descriptive relation "is at least as (un)equal as".⁶ This is a worthwhile project if we are, for instance, interested in investigating causal relationships between inequality and, say, the cohesion in a society, or people's sense of self-respect, or economic growth, and the like. Again, this is not the subject we are pursuing in the present paper, although some of the issues we are going to discuss are of relevance for this topic too. I also would like to point out that many of the measures of inequality that we shall discuss below have been proposed as primarily descriptive measure whereas I shall treat them as a measure of the value of equality.

One might be sceptical about our ability to rank populations by the relation "is at least as good as with respect to egalitarian concerns" rather than by the relation "is at least as good as all things considered". One might suspect that other value considerations will distort our judgements or that we cannot really make sense of the former ordering in contrast to the latter. This is a fair worry but I think we can make sense of such an ordering and bracket other value considerations. For example, we can ask ourselves what we would prefer or choose if we only cared about equality (of some sort).

Still, one might ask what the point is of considering population change and different number cases from an egalitarian perspective. I think there are at least two reasons to consider such cases. The first we have already touched upon: It might shed new light on the vexed topic of population ethics and our duties to future generations. The second reason is that it

⁵ Arrhenius (2009a, 2011).

⁶ I say "primarily" since, as pointed out by Sven Danielsson (see Rabinowicz 2003, fn. 7), depending on the currency of inequality this relation might be partly evaluative because the currency might involve an evaluation. For example, to say that Nir has higher welfare than Ole in outcome X is an evaluation to the effect that Nir is *better off* than Ole in X.

might be a fruitful way of probing our ideas about egalitarian concerns and might reveal as yet unnoticed complexities and problems in our current conceptualization of the value of equality, and suggest new ways of formulating it. This is indeed what I believe and it will be the main thrust of this paper. I think that considering population change and different number cases will reveal that the notion of equality is even more complex than Larry Temkin has already shown in his work on inequality. Moreover, it will show that there are good reasons to reconsider what an egalitarian should be concerned about, or so shall I suggest.

Before turning to these questions, 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 paper. We shall only consider one kind of equality: equality of welfare among people. However, 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 Moreover, which is worth stressing in context of this anthology, health, either as source of welfare or as a component of welfare, is of course not excluded from our concept of welfare. Indeed, if one so likes, all the inequalities we shall consider below could be supposed to consist in, or to be caused by, inequalities in health.

II. Total Sum and Average Pairwise Welfare Differences

Here’s an intuitive measure of the inequality in a population:

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), and Hare (1981). For objective list theories, see e.g., Braybrooke (1987), 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).

Total Pairwise Welfare Difference (TD): The measure of a population X's inequality equals the sum of all welfare differences for all distinct pairs of individuals in the population.

Consider for example a population A consisting of three person p_1, p_2, p_3 with welfare 10, 20, and 20 respectively, that is $A = \langle 10, 20, 20 \rangle$. According to TD, we shall consider the welfare differences of all distinctive pairs of individuals in the population, that is, (p_1, p_2) , (p_1, p_3) , and (p_2, p_3) , The measure of the inequality in A is thus:

$$TD(A) = |10-20| + |10-20| + |20-20| = 20$$

TD is an intuitive starting point since it seems appropriate that both the number and the size of inequalities matters. TD also seems to capture what Temkin has in mind when he describes his “Individual Complaint Theory” (ICT) as the combination of his “Additive Principle of Equality” (AP) and “Relative to All Those Better Off View of Complaints” (ATBO) principle:⁹

“... [T]he ultimate intuition underlying egalitarianism is that it is bad ... for some to be worse off than others through no fault of their own. ... [T]he additive principle reflects the view that if it is really 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. Similarly, the relative to all those better off view of complaints reflects the view that if it is bad to be worse off than one person through no fault of your own, it should be even worse to be worse of than two. After all, to paraphrase the basic insight of the utilitarians, more of the bad is worse than less of the bad...”¹⁰

Similarly, Wlodek Rabinowicz has proposed a measure of the “amount of inequality” in a population which is exactly along the lines of TD, although he only sees it as a non-evaluative measure of the amount of inequality in a population.¹¹

⁹ For more on these principles, see Temkin (1993), ch. 2.

¹⁰ Temkin (1993), pp. 200, 201.

¹¹ Rabinowicz (2003), p. 62.

Clearly, TD is quite a simple theory and we might reasonable want to adjust it to, for example, take into account that differences at low levels matters more than differences at high levels. However, let's instead turn to another simple measure proposed by Rabinowicz:¹²

Average Pairwise Welfare Difference (AD): The measure of a population X's inequality equals the sum of all welfare differences for all distinct pairs of individuals in the population divided with the number of such pairs.

AD is simply TD divided with the number of distinct pairs of individuals in the population $\frac{1}{2}n(n-1)$, that is $AD=TD / \frac{1}{2}n(n-1)$. Consider again population A = <10, 20, 20>. Since the number of distinct pairs of individuals in this population is three, we get the following measure of the inequality in A:

$$AD(A) = (|10-20| + |10-20| + |20-20|) / 3 = 20/3.$$

So here we have two competing measures of the value of inequality. Let's try out these two measures on a number of cases to see how they differ. Let's first start with a case made famous by Temkin:

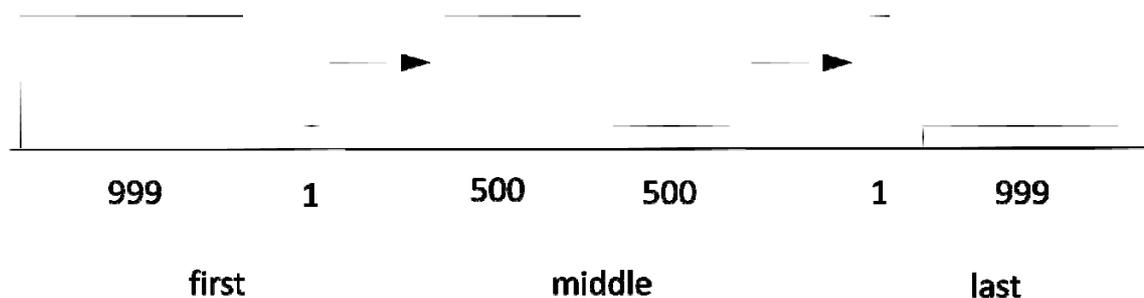


Diagram 2: Temkin's Sequence

In the Sequence, we have a thousand populations, each consisting of a thousand persons. In the first one, we have 999 best off people and one worst off person. As we go down the sequence, the number of best off people decrease and the number of worst off

¹² Rabinowicz (2003), pp. 61-2.

people increase. In the middle population, there is an even split between the number of worst and best off people. In the last population, there is one best off person and 999 worst off people.

In terms of Temkin's complaints theory, we can describe the Sequence as first involving one individual with 999 complaints, then 500 individuals with 500 complaints each, and lastly 999 individuals with one complaint. Hence, the badness of the inequality first increases, peaks at middle population, then decreases.

What is the verdict of TD and AD? Well, we first have 999 pairs involving an inequality, then 500 x 500 such pairs, and lastly again 999 such pairs. Hence, TD also implies that the badness of the inequality first increases, peaks at the middle population, and then decreases so that we have the same situation in regards to inequality in the last population as in the first population. Likewise, AD yields the same result since the number of distinct pairs is constant in same number cases.

In general, TD and AD yields the same ordering in terms of inequality in same number cases since the number of distinct pairs is constant. In other words, these two views are extensionally equivalent in same number cases. To distinguish these views we thus have to turn to different number cases.

III. Proportional Variations in Population Size

Consider the following case:

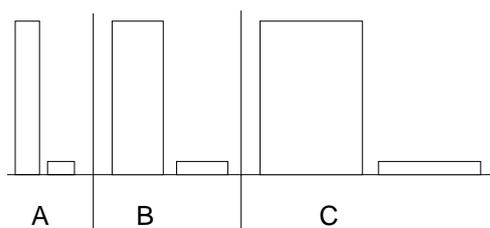


Diagram 3: Proportional Variations

In the above diagram, the best off people have the same level of welfare in the three populations A, B, and C, and likewise for the worst off people. There is, however, a doubling of the population size of the worst and best off groups in B as compared to A, and in C as compared to B. According to what Temkin calls “the Standard View”, which is also called “the Population Principle”, the above populations do not differ in regards to inequality:

The Standard View (SV): Proportional population size variations do not affect (the badness of) inequality.¹³

All standard economic measures of inequality, such as the Gini coefficient, imply SV. According to TD and Temkin's ICT, however, proportional increases in population size increase the badness of inequality since the number of pairs consisting of unequal individuals increases. In other words, with a proportional increase, there are more worst off people and thus a greater number of complaints.

Intriguingly, AD has the opposite implication: Proportional increases in population size decrease the badness of inequality since the number of pairs of equal individuals increases faster than the number of pairs of unequal individuals. For example, consider population $A1 = \langle 10, 20, 20 \rangle$ and $A2 = \langle 10, 10, 20, 20, 20, 20 \rangle$, the latter population being a proportional increase in population size (a doubling) relative to the former. According to AD, the measures of inequality in these two populations are as follows:

$$AD(A1) = (2|10-20| + |20-20|)/3 = 20/3 = 200/30.$$

$$AD(A2) = (8|10-20| + |10-10| + 6|20-20|)/15 = 80/15 = 160/30.$$

Hence, AD ranks A1 as worse in regards to inequality as compared to A2. The reason is that AD not only takes into account the number of unequal pairs but, in difference from TD, is also sensitive to the number of equal pairs in a population since they figure in the denominator. In the change from A1 to A2, the number of unequal pairs increases from 2 to 8, a fourfold increase, whereas the number of equal pairs increases from 1 to 7, a sevenfold increase. Consequently, the fraction of equal pairs relative to all pairs goes up in the move from A1 to A2. The equal pairs are 1/3 of all pairs in A1 but 7/15 (close to half) of all pairs in A2.

¹³ See Temkin (1993), p. 191. Temkin's statement of this principle is, however, a bit different from mine: "Proportional variations in the number of better- and worse-off do not affect inequality". My statement is similar to Rabinowicz (2003), p. 75. Dalton (1920), p. 357, might have been the first to formulate this principle (although in terms of income) under the name "the principle of proportionate additions to persons". Foster (1985), pp. 42, 45 calls it "the population principle" and this seems to have become the received label in the economic literature. Rabinowicz (2003), fn. 19, claims that Foster "refers to this view as the requirement of population homogeneity" but Foster doesn't use this label (he uses the label "homogeneity" for a different requirement, see p. 42). He does, however, write that "condition PP [the population principle] also acts as a 'population homogeneity' property" (p. 46).

So the interesting thing with AD is that the number of equal pairs affects the measure of inequality in a situation. As I shall explain below, I think this is a move in the right direction although I think AD gives too much weight to increases in equal pairs, as its implication in the above case illustrates.

What is then the right answer to these two cases of proportional variation? Well, I think SV is false and I also think AD gets it wrong in this case. There is a good case for the verdict of TD and Temkin's ICT here: A2 is worse than A1 in respect to egalitarian concerns since there is a greater number of worst off people and thus a greater number of complaints in A2 as compared to A1. For the same reason, B and C in the diagram above are worse than A in respect to egalitarian concerns.

As we shall show below, however, there are other versions of proportional population variations in which our intuitions lean towards AD's verdict rather than TD's. To demonstrate this we have to first consider a reconceptualisation of the value of equality, the need of which will be better brought out by another type of case, to which we shall now turn.

IV. Mere Additions of Better off People

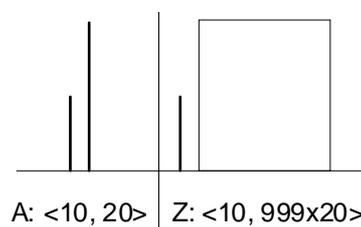


Diagram 4: Mere Additions of Better off People

In A above we have two persons, one with half of the welfare of the other. In Z, we have added another 998 best off people. Z seems intuitively to be better with respect to egalitarian concerns since Z is very close to perfect equality. A, on the other hand, is a straightforwardly unequal population.

Here's how we can analyze this intuition. In A, there are no relations of equality but one relation of inequality. In Z, on the other hand, there is a staggering 498 501 relations of equality, which in comparison dwarfs the puny 999 relations of inequality.¹⁴ Hence, one might

¹⁴ Since the number of pairwise relations in a population of size n is $\frac{1}{2}n(n-1)$, we get that the number of equal relations in Z is $\frac{999(999-1)}{2} = 498501$.

reasonable judge Z as better than A with regards to egalitarian concerns, I surmise, and a natural way to account for this intuition is to claim that from an egalitarian perspective, we should care not only about relations of inequality but also about relations of equality. Moreover, contrary to the received view, I suggest that equal relations are not just of neutral value because of absence of inequality but have a positive value which sometimes can outweigh the negative value of unequal relations. Egalitarians should thus not only be concerned with the badness of unequal relations but also with the goodness of equal relations.¹⁵

Interestingly, that Z is better than A in regards to egalitarian concern is implied by the Gini Coefficient (and some other standard economic measures, for example, Relative Mean Deviation).¹⁶ The Gini Coefficient is approximately 0.17 for A and only 0.0005 for Z.

Likewise, AD ranks Z as better than A in respect to inequality since $AD(A) = (|10-20|)/2(2-1)/2 = 10$ whereas $AD(Z) = (999|10-20|)/(1000*999)/2 = 0.02$. The reason for this ranking is the same as we have seen before: The number of pairs of equal individuals increases faster than the number of pairs of unequal individuals.

TD, on the other hand, implies that Z is worse than A in respect to inequality since in the change from A to Z, the number of unequal relations increases, from 1 to 999. Likewise according to Temkin's ICT since the worst off person has many more complaints in Z as compared to in A, 999 complaints versus 1.

Although AD and the Gini Coefficient yield the right result in the above case, a version of it will bring out a problem with these approaches. As we saw earlier, AD gives too much weight to equal relations. Actually, the same holds true for the Gini Coefficient. Consider the following sequence version of Mere Additions of Better off People:

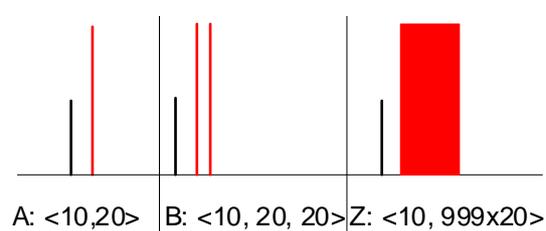


Diagram 5: Mere Additions of Better off People Sequence

¹⁵ Kawchuk (1996) makes a similar proposal in her excellent MPhil-thesis to which I owe much of the inspiration for the current paper.

¹⁶ See Kawchuk (1996), p. 159.

According to both AD and the Gini Coefficient, B is better than A in respect to inequality since $AD(A)=10$ and $GC(A) \approx 0.17$ whereas $AD(B) \approx 6.67$ and $GC(B) \approx 0.13$. This might strike on as a bit odd. In A there is one relation of inequality and no relations of equality whereas in B there are two relations of inequality and one relation of equality. To judge B as better than A in respect to egalitarian concerns is tantamount to judging that the positive value of one relation of equality outweighs the negative value of one relation of inequality. Moreover, this holds irrespective of how small the difference is between the best and worst off in A and B. This gives too much weight to relations of equality relative to relations of inequality, methinks. Rather, in the move from A to B we may well judge that things have gotten worse with respect to egalitarian concerns since the doubling of the relations of inequality (making the complaints stronger) outweighs the positive effect of creating just one relation of equality.

Hence, in regards to AD and the Gini Coefficient on the one and, and TD and Temkin's ICT on the other hand, we seem to be caught between Scylla and Charybdis: Either we get the wrong result in regards to Proportional Variations (AD) and the Mere Additions of Better off People Sequence (AD and Gini Coefficient) or the wrong result in regards to the Mere Additions of Better off People (TD and Temkin's ICT) case. Can we do better?

V. Giving Positive Value to Relations of Equality

What the Mere Addition of Better off People cases brings out quite clearly, I surmise, is that as egalitarians, we should care not only about relations of inequality but also about relations of equality. The idea is that the more people that are unequal, the worse in regards to egalitarian concerns, other things being equal; *and* the more people that are equal, the better in regards to egalitarian concerns, other things being equal. Hence, the egalitarian value of a population is a function both of pairwise relations of inequality (negative) and relations of equality (positive). Let's call this view Positive Egalitarianism:

Positive Egalitarianism (PE): The egalitarian value of a population is a strictly decreasing function of pairwise relations of inequality and a strictly increasing function of pairwise relations of equality.¹⁷

¹⁷ I think this principle is plausible at least as long as we are dealing with positive welfare levels. It might be that relations of equality involving negative welfare shouldn't be assigned a positive value. I shall say a bit more about this in the last section.

This formulation leaves a lot of possibilities open in respect to how to aggregate the value of equal and unequal relations. For example, the aggregation function for the negative value of unequal relations might be strictly linear whereas the function for the positive value of equal relations might be a strictly increasing concave function with an upper limit. Nevertheless, with this approach, we can capture the intuitions regarding the cases discussed above.

Consider first Temkin's Sequence (Diagram 2). What happens in this case according to PE? Well, there are more relations of equality in "first" and "last" as compared to "middle" (498 501 as compared to 249 500). Moreover, there are fewer relations of inequality in "first" and "last" as compared to "middle". Thus, as we get closer to "middle", there is both an increase in unequal relations and a decrease in equal relations. Hence, like TD and ICT, PE implies that the sequence first gets worse, then better in regards to egalitarian concerns since the egalitarian value first decreases, reaches its lowest value at "middle", and then starts increasing again.

Consider now the case of Proportional Variations (Diagram 3). Recall that according to TD and ICT, proportional increases in population size always increase the badness of inequality whereas according to AD, proportional increases always decrease the badness of inequality. Although we agreed with TDA and ICT in respect to the particular case depicted in Diagram 3, neither of these answers are satisfactory as general principles since whether proportional increases are good or bad from an egalitarian point of view should depend on the structure of the case. If there are few relations of inequality, then it should be possible that the badness of these relations is outweighed by the goodness of the increase in the number of equal relations. Moreover, if the inequalities are very small, then it should be possible that the badness of these is outweighed by a sufficiently great increase in the number of equal relations. In other cases, the badness of the increase in the unequal relations might outweigh the goodness of the increase in equal relations. Consider for example the following version of Proportional Variations:

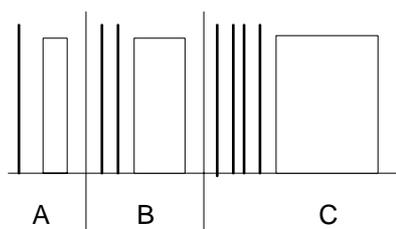


Diagram 6: Proportional Variations with Few and Small Inequalities

In this case, the inequality in welfare between the best off and worst off is very small and there is a small number of best off people as compared to the number of worst off people. Hence, there is a greater increase in the number of equal relations as compared to the number unequal numbers when we move from A to B and from B to C. Still, TD and ICT imply B and C are worse than A in regards to egalitarian concerns. Contrariwise, this is a case of Proportional Variations of which it is reasonable to claim that the goodness of the increase in equal relations outweighs the smaller increase in slightly unequal relations.

In difference from TD and ICT, PE can capture this structural dependence of the egalitarian value of proportional increases in population sizes since both the numbers of relations of inequality and equality increase with proportional size increases. Depending on the weight we give to relations of inequality and equality we can get the result that sometimes proportional increases makes the situation worse, sometimes better, and sometimes no difference, in regards to egalitarian concerns.

Lastly, consider the Mere Additions of Better off People Sequence (Diagram 5). In this case, AD and the Gini Coefficient implied that B and Z are better than A in respect to inequality. As we said, it is reasonable to judge that Z is better than A in respect to egalitarian concerns since in A there is one relation of inequality and no relations of equality whereas in Z there are 999 relations of inequality but a whopping 498 501 relations of equality. PE can of course capture this intuition since it also gives positive value to equal relations.

However, as we pointed out above, it doesn't seem reasonable that the doubling of relations of inequality in B relative to A is outweighed by the addition of one relation of equality. Hence, B is worse than A with regard to egalitarian concerns and AD and the Gini Coefficient get it wrong in this case. PE, on the other hand, can accommodate this intuition. By assigning the right relative weights to the value of unequal and equal relations, PE will imply that first the situation get worse and then better with regards to egalitarian concerns, as with the Temkin's sequence. For example, it is sufficient to give a slightly more negative value to one relation of inequality as compared to one relation of equality to reach this result in regards to A and B.

Another positive feature of PE is that it might help us handle a devastating objection that Temkin has directed 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).¹⁸

The Repellant Conclusion follows from TD and ICT since the value of a sufficient number of small pairwise inequalities can add up to more than any number of great pairwise inequalities. However, it doesn’t follow if we also give positive value to equal relations since population G will be very much bigger than F and thus there will be vastly greater number of equal relations in G as compared to F, and the positive value of these relations can overtake the negative value of the small inequalities.

Let me end with two putative objections to PE. Consider the following populations:

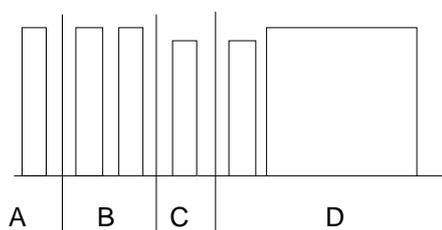


Diagram 7: All Populations are Equal but Some are More Equal than Others

PE implies that B is better than A with respect to egalitarian concerns since B has more equal relations and there is otherwise no difference between these populations. One might find this bizarre since both A and B are perfectly equal populations. It might seem akin to claiming that although both A and B are perfectly equal populations, B is more equal than A.

There is, however, nothing like that going on here. PE doesn’t imply that B is more equal than A or that there is more or worse inequality in A as compared to B. PE just implies that B is better than A in regards to what egalitarians should be concerned about. And if I’m right in that egalitarians should care about the number of equal relations in a population, then there is nothing surprising with B being better than A in regards to egalitarian concerns. With this account of egalitarian concerns, there is no longer any perfect population from an egalitarian perspective since a population can always be made better in this respect by adding people and thereby creating more equal relations.

PE might also imply that D is better than C with respect to egalitarian concerns since the positive value of the great increase in the number of equal relations might outweigh the

¹⁸ Temkin (1993), p. 218.

negative value of the smaller increase in unequal relations. This might seem absurd since C is perfectly equal and D is unequal. How can an egalitarian prefer an unequal population over a perfectly equal one?

Again, however, PE doesn't imply that D is more equal than C or that there is more or worse inequality in C as compared to D but only that D is better in regards to egalitarian concerns. If we care about the number of equal relations, then the goodness of a big increase in the number equal relations might sometimes outweigh a smaller increase in the number of unequal relations. Surprising as this first might seem, it follows that we even from an egalitarian perspective should sometimes prefer an unequal population over a perfectly equal one.

Another way to put this point is that this is a conflict between different conceptions of egalitarian concerns: patterned inequality, on one hand, and the number of unequal and equal relationship on the other hand. As Temkin has long claimed, equality is an extraordinarily complex notion and some notions point in different directions. This is another example of such a conflict between different accounts of what is of moral importance from an egalitarian perspective.

VI. Summary and Discussion

I have argued that considering populations of different sizes gives us good reasons to reconsider what an egalitarian should be concerned about since the accounts developed for same number cases have counterintuitive implications in a number of different number cases. I suggested a new way of conceptualizing egalitarian concerns which seems to capture our intuitions regarding the value of equality and the disvalue of inequality better, or so I argued. According to this view, which I called Positive Egalitarianism, the egalitarian value of a population is both a function of relations of inequality and relations of equality. More exactly, the egalitarian value of a population is a strictly decreasing function of pairwise relations of inequality and a strictly increasing function of pairwise relations of equality.

Positive Egalitarianism can explain our intuitions in a number of test cases and have interesting and sometimes surprising implications. It should be pointed out, however, that we have just provided a sketch of a theory and there are lots of problems and questions that remain. For example, we have neither given a precise specification of the weight of the positive value of equal relations relative to the negative value of unequal relations, nor a function for aggregating these considerations to a measure of the egalitarian value of a population.

Another issue is that we have only discussed PE in connection with positive welfare levels. One might perhaps be less inclined to assign positive value to relations of equality that involves negative welfare levels. Moreover, if one does assign some small positive value to such relations of equality, then one would have to accept an implication akin to the leveling down objection:¹⁹ Adding people with negative welfare to a population might make it in one respect better, although not all things considered better, since it might increase the value of equality in the population. More importantly, as this discussion indicates, how valuable equal relations are might arguably depend on the level of welfare involved.

Lastly, we also need to consider what we should do with small differences in welfare, small inequalities that can equally well be described as “rough equality”. Are only perfectly equal relations of positive value or is it sufficient with rough equality? A promising approach that I think needs serious consideration is that inequality has a negative value when the inequality is sufficiently big but when it gets smaller, we have rough equality which is of neutral value, and when the welfare difference gets even smaller, it has positive value which increases the closer we get to strict equality. So, for example, $\langle 5, 10 \rangle$ might have negative value from an egalitarian perspective; $\langle 8, 10 \rangle$ neutral value since we have reached rough equality; $\langle 9, 10 \rangle$ positive value since we are getting close to perfect equality; and lastly $\langle 10, 10 \rangle$ has maximal positive value regarding egalitarian concerns.

As Temkin has showed, inequality is an extraordinarily complex notion. If I am right in my suggestion that egalitarians should also value equal relations positively, then what an egalitarian should be concerned about is an even more complex notion than inequality since there is yet another aspect that we need to take into account.²⁰

¹⁹ According to the levelling down objection, one cannot make a situation better *in any respect* by just decreasing welfare of the better off (to the same level as the worse off). Many conceptions of the value of equality, like the ones discussed here, have this implication, but I don't find the objection very persuasive (it would be a different matter if a theory implied that is was all things considered better to level down).

²⁰ I would like to thank Nir Eyal, Tom Hurka, Wlodek Rabinowicz, Larry Temkin, and the audience at the Brocher Summer Academy in Global Population-level Bioethics, 12 - 16 July, 2010, for their very helpful comments. Thanks also to CERSES, CNRS, and IEA-Paris 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.

References

- Arneson, R., 'Equality of Opportunity for Welfare', *Philosophical Studies* 56, pp. 77-93 (1989).
- Arrhenius, G., *Future Generations: A Challenge for Moral Theory* (Uppsala: University Printers, 2000a, also available at <http://people.su.se/~guarr/>).
- 'An Impossibility Theorem for Welfarist Axiologies', *Economics and Philosophy* 16, 2000b.
- 'The Person Affecting Restriction, Comparativism, and the Moral Status of Potential People', *Ethical Perspectives*, no. 3-4 (2003).
- 'Egalitarianism and Population Change' in A. Gosseries & L. Meyer (eds.) *Intergenerational Justice*, pp. 325-348, Oxford UP, 2009a.
- 'Can the Person Affecting Restriction Solve the Problems in Population Ethics?', in Roberts & Wasserman (eds.) *Harming Future Persons*, Ashgate, 2009b.
- *Population Ethics* (Oxford: Oxford University Press, forthcoming, 2011).
- Barry, B., 'Utilitarianism and Preference Change', *Utilitas*, Vol 1., pp. 278-282 (1989).
- Braybrooke, D., *Meeting Needs* (Princeton: Princeton University Press, 1987).
- Broome, J., *Ethics out of Economics* (Cambridge: Cambridge University Press, 1999).
- *Weighing Lives* (Oxford: Oxford University Press, 2004).
- Bykvist, K., *Changing Preferences: A Study in Preferentialism*, (Uppsala: University Printers, 1998).
- Cohen, G. A., 'On the Currency of Egalitarian Justice', *Ethics* 99 (1989).
- 'Equality of What? On Welfare, Goods and Capabilities', in M. Nussbaum & A. Sen (eds.), *The Quality of Life* (Oxford: Clarendon Press, 1993).
- Dalton, H., 'The Measurement of the Inequality of Incomes', *The Economic Journal*, Vol. 30, No. 119, pp. 348-361, (Sep., 1920).
- Dworkin, R., 'What is Equality? Part 1: Equality of Welfare', *Philosophy and Public Affairs* 10, no. 3 (1981a).
- 'What is Equality? Part 2: Equality of Resources', *Philosophy and Public Affairs* 10, no. 4 (1981b).
- *Sovereign Virtue: The Theory and Practice of Equality* (Cambridge, Mass.: Harvard University Press, 2000).
- Feldman, F., *Utilitarianism, Hedonism, and Desert: Essays in Moral Philosophy* (Cambridge: Cambridge University Press, 1997).
- *Pleasure and the Good Life: On the Nature, Varieties, and Plausibility of Hedonism* (Oxford: Oxford University Press, 2004).
- Foster, J. E., 'Inequality Measurement' in H. Peyton Young (ed.) *Fair Allocation*, Proceedings of Symposia in Applied Mathematics, vol. 33, American Mathematical Society, Providence, Rhode Island, pp. 31-69, 1985.
- Griffin, J., *Well-Being: Its Meaning, Measurement, and Moral Importance* (Oxford: Clarendon Press, [1990] 1986).
- Hare, R. M., *Moral Thinking: Its Levels, Method, and Point* (Oxford: Clarendon Press, 1981).
- Hurka, T., *Perfectionism* (New York: Oxford University Press, 1993).
- Kawchuk, R., *(In)Equality*, MPhil-thesis (Dept. of Philosophy, University of Calgary, 1996).
- Nielsen, K., 'Radical Egalitarianism Revisited: On Going Beyond the Difference Principle' *Windsor Yearbook of Access to Justice* 15, pp. 121-48 (1996).
- Parfit, D., *Reasons and Persons* (Oxford: Clarendon Press ([1991] 1984).
- Rabinowicz, W., 'The Size of Inequality and Its Badness – Some Reflections around Temkin's Inequality', *Theoria* 69 (2003).
- Rawls, J., *A Theory of Justice* (Cambridge, Mass.: Harvard University Press, 1971).
- Sen, A., 'Equality of What?' in S. McMurrin (ed.), *The Tanner Lecture on Human Values*

(Cambridge: Cambridge University Press, 1980).

——— *Inequality Reexamined* (Cambridge, Mass.: Cambridge University Press, 1992).

——— ‘Capability and Well-Being’ in M. Nussbaum & A. Sen (eds.) (*The Quality of Life*, Oxford: Clarendon Press, 1993).

Sumner, L. W., *Welfare, Happiness, and Ethics* (Oxford: Clarendon Press, 1996).

Tännsjö, T., *Hedonistic Utilitarianism* (Edinburgh: Edinburgh University Press, 1998).

Temkin, L. S., *Inequality* (Oxford: Oxford University Press, 1993).