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# How to Define ‘Prioritarianism’ and Distinguish It from (Moderate) Egalitarianism

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## Abstract

In this paper, first the term ‘prioritarianism’ is defined, with some mathematical precision, on the basis of intuitive conceptions of prioritarianism, especially the idea that "benefiting people matters more the worse off these people are". (The prioritarian weighting function is monotonously ascending and concave, while its first derivation is smoothly descending and convex but positive throughout.) Furthermore, (moderate welfare) egalitarianism is characterized. In particular a new symmetry condition is defended, i.e. that egalitarianism evaluates upper and lower deviations from the social middle symmetrically and equally negatively (as do e.g. variance and Gini). Finally, it is shown that this feature distinguishes egalitarianism also extensionally from prioritarianism.

## Introduction: Open Problems of Prioritarianism and the Aims of This Paper

Egalitarianism and prioritarianism are important ways of correcting utilitarianism for considerations of justice (others are sufficientarianism and leximin). (Telic) egalitarianism aims at diminishing (or eliminating) intersubjective differences in personal goods, in particular individual utilities (Parfit 1997, 204). Prioritarianism on the other hand, wants each person to fare as well as possible, but is especially concerned with those who are worse off. From this idea we get Parfit’s *prioritarian slogan*: "Benefiting people matters more the worse off these people are" (Parfit 1997, 213). While egalitarians are concerned with relativities, i.e. how each person’s level compares with the level of other people, prioritarians are concerned with absolute levels, giving the higher priority to improving the situation the lower the beneficiaries fare in absolute terms (Parfit 1997, 214).

Prioritarianism has many advantages with respect to other criteria of distributive justice, which, however, I can not discuss here. Despite these advantages, up to the present prioritarianism has not been elaborated that much and – among others – the following problems still have to be resolved: 1. (Moderate welfare) egalitarianism as well as prioritarianism, both fulfil the Pigou-Dalton condition and can be represented by concave welfare-functions. Does there then remain any difference between these two approaches and, if yes, what does it consist in? 2. More generally, how can ‘prioritarianism’ and ‘(moderate welfare)

egalitarianism' be precisely defined? 3. If prioritarianism is to be applied in practice the degree of priority has to be established. What exactly is the prioritarian welfare function? 4. Prioritarians have described their *intuitions* about priority. Is there any deeper, in particular internalist, justification of prioritarianism? – In this article I sketch an answer to the first two questions. In a parallel paper (Lumer 2020) I propose an answer to the fourth question; and in Lumer 2005 (22-32) I have provided an answer to the third question.<sup>1</sup>

## I Defining 'Prioritarianism'

Parfit has summarized and systematized the ideas of a number of other philosophers, given this system the name "*priority view*" and coined the prioritarian slogan: "Benefiting people matters more the worse off these people are" (Parfit 1997, 213). A somewhat different way of explicating prioritarian intuitions is to take prioritarianism as a synthesis of utilitarianism and leximin somewhere between these two systems, which preserves the advantages of both, utilitarianism's efficiency and leximin's concern for those badly off, and removes their respective one-sidedness's, utilitarianism's neglect of distributive justice and leximin's inefficient and hard-hearted intrinsic disregard of improvements for those better off (even the second worst off) (Lumer 1997, 102; 2009, 628-32; Temkin 2003).

'Prioritarianism' may informally be defined like this:

*Prioritarianism* is a way of intrinsically morally valuing individual situations, according to which (small) changes in personal well-being, or more generally: personal desirability of the situation, are morally valued in strict positive correlation to these changes but giving more – though not infinitely more – weight to changes for people being badly off; this weight declines continuously and smoothly with increasing personal desirability, however without ever reducing to zero – not even for the highest levels of personal desirability.

The different weights express the degree of our moral concern, i.e. how close improving the lot of the person in question is to the moral subject's heart. Because this desirability function is applied to life situations of *individuals*, the moral value of a *group's* state can be established additively.

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<sup>1</sup> The present article to a great extent is an abridged version of a part of an unpublished working paper of mine (Lumer 2005, sect. 2). The parallel article (Lumer 2021) mainly relies on material – so far published only in German – of my habilitation thesis from 1992: Lumer 2009, 589-632.



The straightforward way of formally modeling prioritarian valuing is to define a one-adic moral value function over normalized personal desirabilities – which may range from 0 to 1. This is represented in figure 1a (source: Lumer 2005, sect. 2.1).

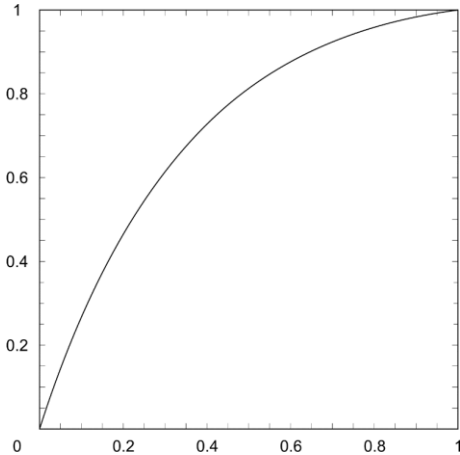


Fig. 1a: Prioritarian value function  $VP (VP_{e19})$

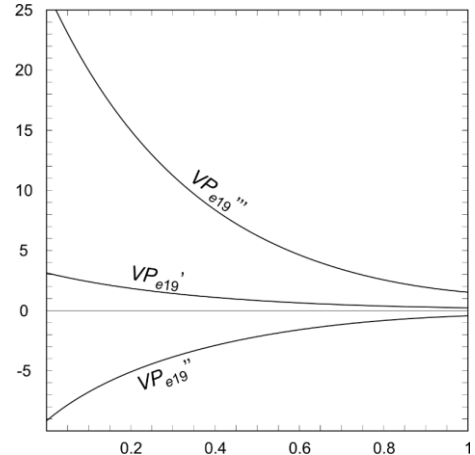


Fig. 1b: Derivations of prioritarian value function

The moral value function increases monotonously because of the strict positive correlation between personal desirability changes and their moral assessment. Therefore, and because of the normalization it has to cross the points (0;0) and (1;1). But the moral value function is concave; it increases less and less steeply, without ever arriving at a slope of zero. The first derivation of this moral value function is represented by the middle curve of figure 1b ( $VP_{e19}'$ ). It expresses more intuitively the idea of prioritarianism as it is coined in the slogan than the value function itself, namely the degree of our concern for, the weight we attribute to *changes* of other people's well-being. This weight is positive allover but it decreases monotonously and smoothly; and because it never reaches zero, not even for the highest well-being, the curve of the first derivation has to be strictly convex (otherwise it would intersect the  $x$ -axis at some point). Mathematically this means that the second derivation has to be negative allover and must be monotonously increasing (see fig. 1b,  $VP_{e19}''$ ). The welfare of a group or a society, finally, is defined as the sum of the moral desirability of the situations of its members.

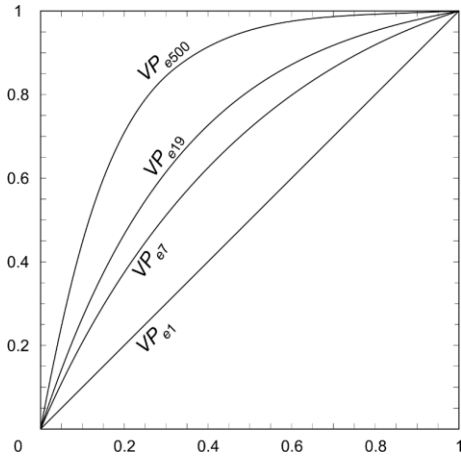


Fig. 2a: Prioritarian functions:  $VP_{e1}$ ,  $VP_{e7}$ ,  $VP_{e19}$ ,  $VP_{e500}$

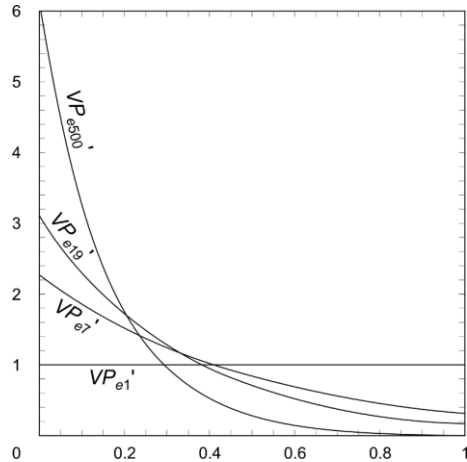


Fig. 2b: First derivations  $VP_{ee}'$  of prioritarian functions

As suggested by figure 2a, there are infinitely many functions having the features just described. The two limiting cases are, first, the diagonal itself, i.e. the identity function, according to which the moral value is identical to the personal desirability; this is the utilitarian way of valuing with a zero-degree of priority so to speak. And, second, there is the right angle connecting the points (0;0), (0;1) and (1;1), or more precisely a function which approaches this angle and cannot be visually distinguished from it; this function represents leximin. Prioritarian desirability functions have to be between these two limiting cases, which expresses that prioritarianism is a synthesis of utilitarianism and leximin.

The features explained so far are sufficient for formally defining 'prioritarianism':

*Abbreviations:*

$VPT(a)$  = prioritarian value function (under certainty) over objects  $a$  (e.g. actions).

[ $VPP(a)$  = prioritarian value function (under risk) over objects (prospects)  $a$  (e.g. actions).]

$VP(x)$  = prioritarian weighting function over personal desirabilities  $x$ .

$U_i(a)$  = personal utility / desirability of object  $a$  for person  $i$ .

*Definition:*

*Prioritarianism* is a way of moral valuation that can be represented by an

(P1) additively separable moral value function  $VPT(a)$  of the form:

$$VPT(a) := \sum_i VP(U_i(a)) = \sum_i VP(u_i) \text{ for certain prospects } a$$

(readers not interested in the valuation of risky prospects can skip conditions P2 and P3)

[(P2) and  $VPP(a) := R[\langle VPT(a_1), P(a_1) \rangle, \dots, \langle VPT(a_m), P(a_m) \rangle]$  for risky and uncertain prospects  $a = \langle \langle a_1, P(a_1) \rangle, \dots, \langle a_m, P(a_m) \rangle \rangle$  –  $a_i$  is a possible outcome of  $a$ , and  $P(a_i)$  is its probability –, where]

[(P3)  $R(x_1, \dots, x_m)$  is a suitable monotonously increasing weighting function for not certain prospects with  $R(0) = 0$  and  $R(\langle VPT(a), 1 \rangle) = VPT(a)$ ,]

(P4) and where  $VP(u)$  is a three times differentiable value function with

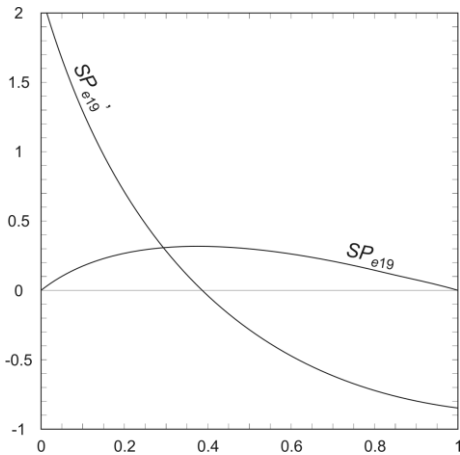
(P4.1)  $VP'(u) > 0$  for all  $u$ ,

(P4.2)  $VP''(u) < 0$  for all  $u$ ,

(P4.3)  $VP'''(u) > 0$  for all  $u$ , and

(P5) for which a set of real (at some point in history) options  $\{a, b\}$  exists with  $VPT(a) > VPT(b)$  which is in contrast to the leximin valuation (because  $a$  entails some greater utility for people better off than  $b$  for some people worse off).

For the subsequent comparison of prioritarianism to egalitarianism it is helpful to consider the following feature. Prioritarian value functions remain above the diagonal (see figure 2a) so that one can examine the mathematical qualities of the piece over the diagonal, too, i.e. the curve which results from subtracting the diagonal from the desirability function. This difference function may be called the "*surplus function*"; it is shown in figure 3 ( $SP_{e19}$ , i.e. the more horizontal graph; the other graph in figure 3 represents the first derivation of the surplus function,  $SP_{e19}'$ ).



**Fig. 3:** Prioritarian surplus function:  $SP(u) := VP(u) - u$

In prioritarianism this surplus function intuitively makes no sense; it is just the result of a mathematical transformation; but it can be compared to egalitarian *surplus* functions. The prioritarian surplus function goes from (0;0) to (1;0), is concave and constitutes a hill between these points. However, the characteristic property, which distinguishes prioritarian surplus functions from some egalitarian surplus functions, is that the prioritarian surplus functions are right-skewed: they ascend steeper on the left side than they descend on the right side. (Its first derivation is identical to the first derivation of the prioritarian value function shifted downwards by one unit. The second and third derivations of the surplus function are identical to those of the prioritarian value function itself.) I will come back to this feature below.

## II Trying to Define 'Egalitarianism' in Opposition to Prioritarianism

What is egalitarianism? Parfit has distinguished telic egalitarianism from deontic egalitarianism, where the former is interested in the final distribution, intrinsic from instrumental egalitarianism, and moderate from radical (or pure) egalitarianism, where the former satisfies the Pareto-principle. In addition, egalitarianisms have to be distinguished according to the good they hold to be distributed equally (Parfit 1997, 203-9). In the following I will speak only of moderate, telic and intrinsic egalitarianism of utilities because this version is the most difficult to distinguish from prioritarianism. *Moderate* egalitarianism is not only interested in equality but also in a high sum of personal utilities.

Some theorists have a rather loose way of using the label "egalitarianism" so that egalitarianism includes prioritarianism or leximin. Here I will use the expression "egalitarianism" in a narrower, more specific sense, namely – provisionally –: egalitarianism cares about *equality* in the sense that it tries to *diminish inequalities*; it values lower and upper deviations from the middle (mean, median ...) negatively, the greater they are the more negative.

How can egalitarianism and prioritarianism be distinguished? In the literature several differences are recognized: 1. different "justifications", or better: different aims (equality vs. priority); 2. interest in relativities vs. absolute levels; 3. lacking vs. present additive separability; 4. lacking vs. present strong separability; 5. interest in distribution patterns vs. interest only in absolute levels. However, so far there is still no *proof* of a compelling and extensionally relevant difference between egalitarianism and prioritarianism (for decisions under certainty). In the following I try to prove that there is such difference, which goes beyond the just mentioned: 6. symmetrical and increasing depreciation of deviations from the mean vs. smoothly decreasing care for those better off, which implies: 6.1. symmetrical vs. right-skewed surplus functions and 6.2. lack vs. presence of strong separability. In the following only feature 6.1 can be dealt with.

### III The Essence of Egalitarianism: Symmetrical and Increasing Devaluation of Deviations from the Middle

So what is the essential core of moderate egalitarianism that leads to the demarcating formal, mathematical differences and then also extensional differences to prioritarianism? Despite egalitarianism's lack of additive separability (in contrast to prioritarianism, see P1), one may isolate individualized components of the egalitarian welfare function, i.e. vary the personal desirability for one person only (and keeping the desirability levels of all other persons constant, so that the social mean remains virtually unchanged) and see how these changes affect the egalitarian total welfare. If we consider such individualized functions, the purely egalitarian component of egalitarian value functions can be formulated in a negative way: Egalitarianism as such values deviations from a (hypothetical) state of equality as negative, the bigger these deviations are, the more negatively (more than proportionally) they are valued. This holds for downward deviations as well as, *ceteris paribus*, for upward deviations, which in this respect are valued symmetrically, i.e. equally negative, depending on the absolute value of the deviation alone. This symmetry is essential for egalitarianism be-

cause if somebody is exclusively interested in *equality*, the *direction* of deviation from equality should not matter; and if he is interested in equality only among other aspects – like, additionally, high sum or mean of individual desirabilities – the direction of deviation should not matter for the egalitarian aspects of his valuations. To summarize, pure egalitarianism and the egalitarian component in moderate egalitarianism here are characterized by two conditions, the *symmetry condition*, which says that upward and downward deviations from some middle must be valued equally negatively, and the *increasing weight condition*, which says that greater deviations should be valued increasingly, over-proportionally stronger. Moderate egalitarianism then may add the sum of utilities to this pure egalitarianism.

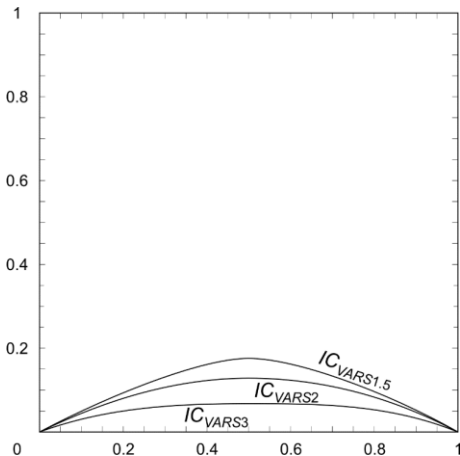
In contrast to this interpretation of 'egalitarianism', however, various contemporary theorists characterize (moderate desirability) egalitarianism by very broad conditions that do not imply the symmetry condition – e.g.: intrinsic badness of inequality, intrinsic badness of some being worse off than others, optimality of equality, Pigou-Dalton condition (Parfit 1995, 4; 1997, 204; Temkin 2003, 62-63; Tungodden 2003, 2; Fleurbaey 2015, 207; Voorhoeve 2015, 201). According to the argument just put forward, this would be too broad (so also: Broome 2015, 219). And this missing confinement of the concept 'egalitarianism' is confusing for the ethical systematics. For not only egalitarianism, but also prioritarianism fulfils these conditions at least extensionally. Thus, these conditions are not suitable for the demarcation of egalitarianism and prioritarianism. Prioritarianism, on the other hand, does *not* fulfil the *symmetry* condition (details below). Therefore, symmetry and increasing weight are not only characteristic of egalitarianism, but also suitable for the differentiation from prioritarianism.<sup>2</sup>

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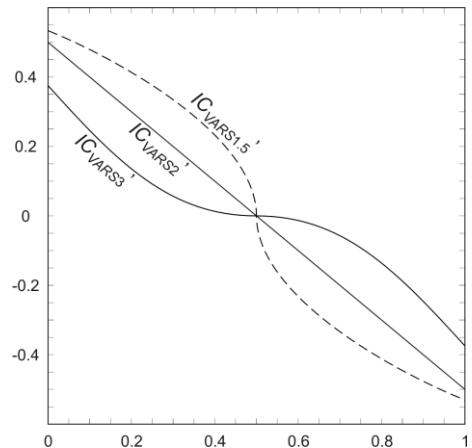
<sup>2</sup> Because Fleurbaey defines 'egalitarianism' very broadly – namely via the principles: 'equality is the best distribution' and 'inequality is intrinsically bad', to which he often adds the Pigou-Dalton condition and, in the case of moderate egalitarianism, also the Pareto Principle (Fleurbaey 2015, 207-8) – he considers prioritarianism extensionally only to be a special form of egalitarianism (ibid. 203; 207): prioritarianism "can be represented as a combined function of the average (or total) amount of benefit and of an inequality index" (ibid. 208). According to the argument just presented, Fleurbaey overlooks an essential characteristic of egalitarianism, viz. the symmetry condition, which leads to a narrower meaning of "egalitarianism". And he has a much too broad concept of 'inequality index', which also includes the prioritarian surplus function as the core of an inequality index, though it is right-skewed and completely detached from the social mean.

## IV Specification of the Essential Conditions of Egalitarianism and Formal Demarcation from Prioritarianism

The symmetry and the increasing weight conditions, which have just been characterized informally, are now to be more precisely defined mathematically in order to specify the difference between prioritarianism and the forms of egalitarianism which are closest to prioritarianism in mathematical terms as well. There is a wide variety of egalitarian welfare functions with very different constructive features. Therefore, egalitarian welfare functions altogether are hard to compare to prioritarian ones. But at least some of them are constructed in a way that they subtract some measure of inequality from the sum of individual desirabilities. And again, some of these inequality measures are symmetrical in the sense that they count lower and upper deviations from some mean in the same way, furthermore they fulfil the increasing weight condition: e.g. variance, Gini-coefficient, Rescher's (1966, 33; 35-36) effective-average principle, Trapp's Utilitarianism incorporating justice (cf. Trapp 1988, 356; 1990, 365). The appertaining welfare functions are ideal types of egalitarian welfare functions. One can construct such ideal egalitarian welfare function as follows. First, one models the pure egalitarian part, as it is exemplified in figure 4a. (Figure 4a shows egalitarian surplus functions which lead to variations of the variance as inequality measure:  $IC_{VARSp}(u) = -0.5 \cdot |0.5-u|^p + 0.5 \cdot 0.5^p$ , with  $p>1$ ; figure 4a represents the graphs for  $p=1.5$ ,  $p=2$ ,  $p=3$ .)



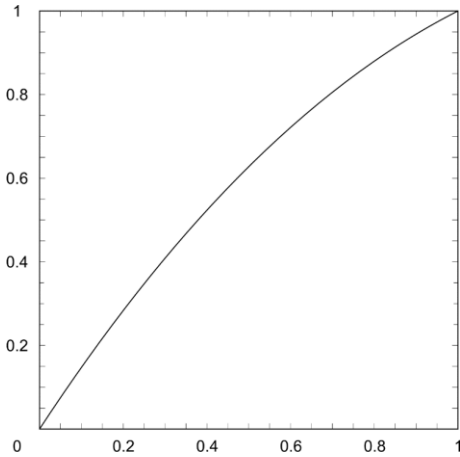
**Fig. 4a:** Inequality contribution (= equality surplus) of individual utility ( $u_{\mu}$  fixed ( $u_{\mu}=0.5$ )):  $IC_{VAR1.5}(u)$ ,  $IC_{VAR2}(u)$ ,  $IC_{VAR3}(u)$



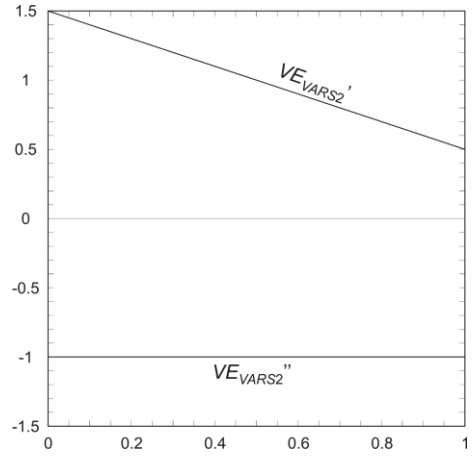
**Fig. 4b:** Derivations of inequality contributions (= equality surplus) of individual utilities  $IC_{VAR1.5}'(u)$ ,  $IC_{VAR2}'(u)$ ,  $IC_{VAR3}'(u)$

The two conditions of symmetry and increasing weight are implemented by a surplus function, which gives some surplus value to the fact that a person's well-being is close to the social mean – which for simplicity we assume to be 0.5. The farther away a person's well-being is from this mean, the more the surplus value decreases. In addition, this deviation from the mean is valued over-proportionally so that we have a concave and not a linear decrease of the surplus function at both sides of the mean. In the usual models of moderate egalitarian value, a measure of inequality is *subtracted* from the utility sum (or average utility). The surplus function corresponds to the function of this inequality measure except that the surplus function is shifted upwards, so that the surplus values are positive for the normal utility interval [0;1]. This allows the comparison with prioritarianism without changing the order of preference.) In function  $IC_{VARSZ}$ , shown in figure 4.a, for example, the inequality measure is shifted upwards by 0.125. The deductions for the deviation from the center thus become a surplus for the proximity to the center. This surplus function can now nicely be compared to the prioritarian surplus function – shown in figure 3: 1. *Egalitarian* surplus functions (fig. 4a) are axially symmetrical with respect to the social mean, whereas the prioritarian surplus functions (fig. 3) are right-skewed. For reasons of space I will not go into the mathematical details, but the axial symmetry of the egalitarian surplus functions, of course, has many further mathematical consequences for the derivations: point symmetry of the first derivation (fig. 4b), axial symmetry of the second derivation, point symmetry of the third derivation with respect to the point  $(u_{\mu};0)$ . Right-skewness of the *prioritarian* surplus function, instead, means that upper deviations from the peak are valued less negatively than lower deviations. This feature of prioritarianism makes sense in the context of assessing welfare, i.e. *desirability* distributions: We can neither redistribute desirabilities from above to below, as is presupposed in resource egalitarianism; nor does above-average well-being directly cause harm to those badly off, as is presupposed in egalitarianism of power, rights and status for these distribuenda. Rather, right-skewness is only the mathematical consequence of a heavier weighting of changes for people who are badly off – completely independent of social distributions of individual desirabilities. 2. By definition, the peak of the egalitarian surplus function is attributed to the social mean (i.e.  $IC(u_{\mu})$ ). The position of the peak of the prioritarian surplus function, on the other hand, has no defined meaning, it can only be calculated; and it changes with the degree of prioritarianism: the stronger the degree of prioritarianism, the further to the left is the peak (i.e. the smaller is the  $u_x$  above which the peak is collocated).





**Fig. 5a:** Egalitarian value function  $VE_{VARS2}$  based on variation, individual contribution  $u_\mu$  fixed ( $u_\mu=0.5$ )



**Fig. 5b:** Derivations of egalitarian value function based on variation, individual contribution  $u_\mu$  fixed ( $u_\mu=0.5$ )

As a second step in modelling welfare egalitarianism one might want to include moderate egalitarianism, which apart from caring about equal distributions is also interested in increasing overall social well-being. This concern can be modelled by simply adding a utilitarian component to the surplus function, i.e. the diagonal – mathematically speaking. As a result, as can be seen in figure 5a, we get the concave value functions, which at first sight are similar to prioritarian value functions. But now we know that there are clear mathematical differences – at least between ideal egalitarian and prioritarian welfare functions –, which can easily be read from the surplus functions. The egalitarian surplus function is axisymmetric (with respect to  $x=u_\mu$ ) (fig. 4a), whereas the prioritarian surplus function is right-skewed (fig. 3). Therefore, the first derivation of the examined egalitarian surplus function is point-symmetric with respect to the point  $\langle u_\mu, 0 \rangle$  (fig. 4b) – as opposed to the convex first derivation of the prioritarian surplus function (function of fig. 2b shifted downwards by 1; the slant graph in fig. 3).

Do the mathematical differences between prioritarianism and moderate welfare-egalitarianism have any practical significance – in terms of different preference orders? Consider the following desirability distributions:

*Symmetry litmus:*

$$a = \langle 0.75, 0.75, 0 \rangle,$$

$$b = \langle 1, 0.25, 0.25 \rangle \text{ (cf. Lumer <2000> 2009, 631).}$$

$a$  and  $b$  have the same sum of utilities and the same mean, namely  $u_{\mu}=0.5$ . They are constructed in such a way that in  $a$  there are two upper deviations of 0.25 and one lower deviation of 0.5 from this middle, whereas in  $b$  these deviations are exactly reversed: two lower deviations of 0.25 and one upper deviation of 0.5 from the middle. So the structure of the example is:  $a = \langle m+d, m+d, m-2d \rangle$ ,  $b = \langle m+2d, m-d, m-d \rangle$ , where  $m$  is the mean. Hence the utilitarian aspects of  $a$  and  $b$  are identical, and their egalitarian aspects are symmetrical. Therefore, all (real) egalitarian value functions, which fulfil the symmetry condition, have to value  $a$  and  $b$  as equivalent. Prioritarian valuations, on the other hand, prefer  $b$  to  $a$ , and they have to do so because of the definitional properties of prioritarian evaluation functions, namely the continuously decreasing moral weight of desirability changes with increasing desirability level (represented by the first derivation of the prioritarian value function and which leads to the right-skewness of the respective surplus function). The example can therefore be used as a litmus test for fulfilling the symmetry condition and thus for distinguishing between truly egalitarian and other, especially prioritarian evaluations. This preference for  $b$  is generated even with minimal degrees of priority.

The prioritarian value difference between  $a$  and  $b$  is also reflected in many people's intuitions. In studies conducted in 2002-2004 with 79 participants who had to choose according to their moral intuitions between alternatives constructed in the fashion of  $a$  and  $b$  81.0% ( $n=64$ ) of the subjects preferred the analogue of  $b$ , i.e. decided in a prioritarian way; 13.9% ( $n=11$ ) preferred the analogue of  $a$ ; and only 1.3% ( $n=1$ ) found the analogues of  $a$  and  $b$  equivalent, i.e. decided in a welfare egalitarian way (3.8% ( $n=3$ ) gave no clear answer). This means, first, that the difference between  $a$  and  $b$  is not only technical gimcrackery but is intuitively seen as making a practical difference and, second, there are more prioritarians around than is usually assumed.

In summary, we have thus found an important, also extensionally relevant difference between prioritarianism and egalitarianism – if egalitarianism is understood only in a sufficiently specific way –: namely symmetrical and increasing depreciation of deviations from the mean (egalitarianism) vs. smoothly decreasing concern for the better-off with growing well-being (prioritarianism). This difference then implies the symmetry vs. right-skewness of the surplus function.

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