Prioritarianism for Prospects

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The Interpersonal Addition Theorem, due to John Broome, states that, given certain seemingly innocuous assumptions, the overall utility of an uncertain prospect can be represented as the sum of its individual (expected) utilities. Given Bernoulli's hypothesis, according to which individual utility coincides with individual welfare, this result appears to be incompatible with the Priority View. On that view, due to Derek Parfit, the benefits to the worse off should count for more, in the overall evaluation, than the comparable benefits to the better off. Pace Broome, the paper argues that prioritarians should meet this challenge not by denying Bernoulli's hypothesis, but by rejecting one of the basic assumptions behind the addition theorem: that a prospect is better overall if it is better for everyone. This conclusion follows if one interprets the priority weights that are imposed by prioritarians as relevant only to moral, but not to prudential, evaluations of prospects.

The starting point of this paper is the Interpersonal Addition Theorem, due to John Broome, Weighing Goods (Oxford, 1991). Given some seemingly mild assumptions, the theorem implies that the overall utility of an uncertain prospect is the sum of its individual utilities. Section I below discusses the theorem's connection with utilitarianism, while section II deals with the question to what extent the theorem still leaves room for the well-known Priority View which has been put forward by Derek Parfit. Unlike utilitarianism, the Priority View requires that benefits to the worse off should count for more, overall, than the comparable benefits to the better off. Broome and Karsten Klint Jensen have argued that prioritarianism, if applied to prospects, cannot be a plausible competitor to utilitarianism: For measurement-theoretical reasons, the addition theorem severely circumscribes the space that is being left for the Priority View. I suggest, in section III (the main section of this paper), that this difficulty is spurious: Prioritarians would be well advised, on independent grounds, to reject one of the theorem's basic assumptions: the Principle of Personal Good for prospects. If the addition theorem is disarmed in this way, then, as an added bonus, the Priority View disposes of the problems with measurement.

According to the Principle of Personal Good, one prospect is better than another if it is better for everyone or at least better for some and worse for none. That the Priority View should reject this welfarist intuition may come as a surprise: Isn't welfarism a common ground for prioritarians and utilitarians? Still, as I will argue, this welfarist common ground is better captured by a restricted Principle of Personal Good that applies to outcomes, but not necessarily to uncertain prospects. We arrive at this conclusion if we interpret the priority weights that are imposed by prioritarians as relevant only to moral, but not to
prudential, evaluations of prospects. This makes it possible for a prospect to be morally better (i.e., better overall), even though it is worse (prudentially) for everyone concerned. In section IV, I argue that the divergence between moral and prudential evaluations should be recognized by prioritarians even for cases in which there is just one person to consider. Section V discusses some controversial conceptual commitments of my interpretation of the prioritarian view. Section VI concludes.

I. INTERPERSONAL ADDITION

To state Broome’s theorem, suppose there are finitely many individuals \([i_1, ..., i_n]\). Let us also assume a finite partition of alternative states of nature, \([S_1, ..., S_m]\). It may be uncertain which of the states actually obtains. A prospect is an assignment of outcomes to the states of nature, where an outcome, intuitively, specifies what happens to each individual, with respect to the factors that are relevant to his or her welfare. For each possible state, then, a prospect specifies an outcome that would be realized if that state were to obtain. In a sense, a prospect is a kind of lottery in which outcomes are possible prizes, with the actual prize being dependent on the state that happens to obtain, which may well be uncertain. We can represent a prospect \(x\) as a vector, \(x = (o_{i_1}, ..., o_{i_n})\), where \(S_1\) yields \(o_{i_1}\), \(S_2\) yields \(o_{i_2}\), etc.

We postulate the existence of individual betterness orderings of prospects, one for each individual, that for any two prospects specify which of them, if any, is better for that individual or whether they are equally good. In addition, we have an overall betterness ordering of prospects that specifies the ranking of prospects in terms of their overall value. The prospect orderings indirectly order outcomes as well, since any outcome may be associated with the ‘safe’ prospect that assigns this outcome to each state of nature. The ordering of safe prospects induces the corresponding ordering of outcomes.

Betterness orderings of prospects are important for us, not least from the practical point of view. Normally, it is not in our power to directly realize a definite outcome. Instead, our choice is made between different actions that stand at our disposal. Now, the actual outcome is determined partly by the action we choose and partly by the state of the world (‘state of nature’). One might therefore think of an action as a prospect that leads to different outcomes under different states of nature. If we know how to compare prospects, we are able to compare actions with each other.

We assume that each individual betterness ordering of prospects satisfies the axioms of expected utility theory (assumption P1), and that the same holds for the overall ordering (assumption P2). Con-
sequently, for each of these orderings, there is a utility function on prospects and a probability distribution on states such that the utility function represents the ordering, i.e., assigns higher values to better prospects, and is expectational with respect to the probability distribution. In other words, the utility it assigns to a prospect is the weighted sum of the utilities it assigns to its possible outcomes under various states, with the weights being the probabilities of these states. This expectational representation of the underlying betterness ordering is unique up to positive linear transformations. In other words, all expectational functions that represent the same prospect ordering are positive linear transformations of each other. As such, they differ at most by the choice of the zero point and of the unit of measurement.

As the last assumption for the theorem (assumption P3), we take the Principle of Personal Good, according to which the overall betterness ordering of prospects is positively dependent on the individual betterness orderings, in the following sense:

(a) Prospects that are equally good for each individual are equally good overall;
(b) If a prospect is better than another prospect for some individual(s), and at least as good for everyone else, then it is better overall.

The Principle of Personal Good is based on the intuition that overall good is a function of the personal good of the individuals, and of nothing else (clause (a)). Furthermore, this function is strictly increasing in each argument (clause (b)): Making a prospect better for some without making it worse for anyone else always makes the prospect better overall. We are now ready to state the Interpersonal Addition Theorem:

P1, P2, P3 \implies
If an expected utility function \( u \) represents the overall betterness ordering \( B \), then there are expected utility functions \( u_1, \ldots, u_n \) that represent the individual betterness orderings \( B_1, \ldots, B_n \), respectively, such that \( u \) is the sum of \( u_1, \ldots, u_n \):

\[
u(x) = u_1(x) + \ldots + u_n(x), \text{ for all prospects } x.\]

\(^1\) This theorem is formally similar to the well-known aggregation theorem of John Harsanyi (see his 'Cardinal Welfare, Individualistic Ethics, and Interpersonal Comparisons of Utility', *Journal of Political Economy*, lxiii (1955); repr., *Essays on Ethics, Social Behavior and Scientific Explanation*, Dordrecht, 1976). However, while Harsanyi was concerned with aggregation of individual preferences, Broome aggregates individual betterness orderings. In addition to this philosophical difference, there is a technical difference as well: While Broome's betterness orderings range over uncertain prospects (= assignments of outcomes to states of nature), Harsanyi's preference orderings range over von Neumann-Morgenstern lotteries, i.e., over probability distributions on outcomes.
This looks very much like utilitarianism, according to which the overall goodness of a prospect is the sum of its goodness values (welfare values) for each individual. That we should arrive at utilitarianism in this way is astonishing since the assumptions of the theorem seem to be relatively innocuous while utilitarianism is a deeply controversial view. However, as Broome argues, the appearances are misleading. The theorem, as it stands, is not about goodness but about utility. To be sure, a utility function \( u_i \) represents the individual betterness ordering \( B_i \), which means that it orders prospects according to how good they are for a given individual. But \( u_i \) may still not be a proper measure of the goodness of a prospect for a given individual. It may instead be a non-linear strictly increasing transformation of some other function \( g_i \) that adequately measures the individual goodness of a prospect:

\[
\text{For all prospects } x, \quad u_i(x) = w(g_i(x)).
\]

That \( w \) is strictly increasing implies that \( u_i \) orders the prospects in the same way as \( g_i \). Consequently, both functions represent the individual betterness ordering \( B_i \). But, in view of assumption P1, the non-linearity of \( w \) would mean that, unlike \( u_i \), the goodness function \( g_i \) is not expectational. To close the remaining gap between the addition theorem and utilitarianism, we therefore need an extra assumption:

**Bernoulli's Hypothesis**: Individual goodness is an expectational function.

That is, the individual goodness of a prospect is the probability-weighted sum of the individual goodness values of its possible outcomes. Given P1, Bernoulli's hypothesis is equivalent to the claim that each individual utility function \( u_i \) that appears in the equation \( u(x) = u_1(x) + \ldots + u_n(x) \) is identical with the goodness function for \( i \) up to a positive linear transformation.

Broome's own view is that we should accept Bernoulli's hypothesis. If we do so, he claims, we move from the Interpersonal Addition Theorem to a full-fledged utilitarian conception of the good.\(^2\) I think this is too hasty: utilitarianism requires more than this. We have to make sure that the functions \( g_i \) for different individuals measure their welfare on a common scale. As they stand, neither the assumptions of the theorem nor Bernoulli's hypothesis make the individual goodness values interpersonally comparable. They imply, in technical terms,

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\(^2\) At least for those cases in which the set of individuals can be assumed to be fixed as one moves from one prospect or outcome to another. If different individuals are allowed to exist in different outcomes that are being compared with each other, the situation becomes much more complicated. Here we ignore this complication.
that the overall goodness is an additively separable function of the individual goodness values, but they do not guarantee that each individual is treated equally in this addition.

The addition theorem states that for each expectational representation \( u \) of \( B \), there are some expectational representations \( u_1, \ldots, u_n \) of \( B_1, \ldots, B_n \) that sum up to \( u \). Now, even if Bernoulli’s hypothesis holds and each \( u_i \) in the sum \( u = u_1 + \ldots + u_n \) is just a linear transform of the corresponding \( g_i \), it is still possible that we need to use different linear transforms for different individual goodness functions in order to obtain such a simple additive formula. For example, suppose that the transformations in question are as follows: \( u_1 = 2g_1 \), while for all \( i \neq 1 \), \( u_i = g_i \). Then we have: \( u = 2g_1 + g_2 + \ldots + g_n \). In other words, in the calculation of the overall utility, individual 1 counts twice as much as anyone else. This is, of course, alien to the utilitarian way of counting, according to which each individual is to count equally. In what follows, however, I shall sweep this important problem under the rug and assume interpersonal comparability of individual goodness values as given. I shall also assume as given a common probability assignment \( P \) to states of nature, on which both the individual measures of goodness and the measure of overall goodness are based.³

II. BERNOULLI’S HYPOTHESIS AND THE PRIORITY VIEW

In the absence of Bernoulli’s hypothesis, Broome argues, we haven’t yet got utilitarianism. Without that extra assumption, there is room for other theories of the good, such as the Priority View (cf. Derek Parfit, ‘Equality or Priority?’, The Lindley Lecture 1991, University of Kansas, 1995). On that view, there is a divergence between how good a situation is for an individual and the contribution that the individual goodness makes to the overall goodness of the situation. That contribution is positive but non-linear according to prioritarians: increased individual benefits have a successively decreasing impact on the overall goodness of a situation. Consequently, benefits to the worse off count for more, overall, than those to the better off. On Broome’s interpretation, then, the Priority View accepts the three assumptions

³ In fact, the three assumptions of the Interpersonal Addition Theorem imply that the probability functions \( p_i \) that underlie the expectational utility measures \( u_i \) must coincide with the probability function \( p \) on which the overall measure \( u \) is based (cf. Broome, sect. 7.1). But we cannot rely on this probability agreement in what follows if we want to question, as I am going to, one of the relevant assumptions of the theorem, The Principle of Personal Good. Instead, we must fix the probability assignment to states independently, in one way or another.
of the addition theorem but rejects Bernoulli’s hypothesis. It takes the
expectational function $u_i$ to measure the contribution made by indi-
vidual goodness but not the individual goodness itself. The measure of
the latter, $g_i$, must be non-expectational, given the addition theorem
and the non-linear relationship between individual goodness and its
contribution to overall goodness.

While Broome admits the Priority View as a theoretical option, he is
quite doubtful about its viability (cf. Broome, p. 217). Jensen develops
this line of criticism. Roughly, the difficulty with the Priority View is
that this position would require a method of measuring individual
goodness that is independent from the way in which we measure
individual utility. But the two measures would still have to coincide
in their ordering of prospects! That such an independent order-
preserving measure of goodness can be found is doubtful, to say the
least.

On the standard view about measurement, quantitative measures
are nothing more than numerical representations of the underlying
qualitative orderings. The claim that two measures $u_i$ and $g_i$, which
represent the same prospect ordering, essentially differ from each
other can therefore be meaningful only if the difference between the
measures can somehow be made good in qualitative terms, when we
turn our attention from simple prospect orderings to some more
comprehensive qualitative structures. Suppose two such distinct
structures give rise to the same prospect ordering and the prospect
measures $g_i$ and $u_i$ are each derived from some numerical represen-
tation of its corresponding structure. Only then the two measures may
be said to be essentially different. But the difficulty is that it is unclear
what the relevant qualitative structures might be.

To find them, we might consider more complex ordering relations.
In particular, we might distinguish between a ‘difference ordering’, $R_i$,
that compares the individual welfare increments, and another differ-
ence ordering, $R'_i$, that compares the increments in contributions
made by individual welfare. While the former compares changes in
individual welfare, the latter compares the contributions these
changes make to overall goodness. Suppose now that the two orderings
are non-equivalent: for some prospects $x, x', y$ and $y'$, the change from
$x$ to $x'$, as compared with the change from $y$ to $y'$, gives $i$ a larger in-
crement in welfare, but this larger increment makes a smaller contri-
bution to overall goodness. Suppose, however, that both difference
orderings still yield the same simple ordering of prospects: That is, an
increment in $i$'s welfare always makes a positive contribution to the

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overall value of a prospect. If the functions \( g_i \) and \( u_i \) come, respectively, from the measures that represent these two distinct underlying orderings \( R_i \) and \( R'_i \), and if \( u_i \) is not just a linear transformation of \( g_i \), then we could argue that individual goodness and the contribution made by it to overall goodness are non-equivalent concepts. The trouble with this approach, however, is that the comparisons needed to determine the two different orderings are quite demanding and not easy to obtain. The space that is left for the Priority View by the addition theorem is thus severely circumscribed.\(^5\)

III. THE PRIORITY VIEW – TWO INTERPRETATIONS

As stated in the introduction, this paper is concerned with the interpretation of the Priority View. Forget for a moment about the Interpersonal Addition Theorem. To clarify the difference between that view and utilitarianism, it is best, I think, to begin with their respective ways of evaluating outcomes. Evaluation of uncertain prospects will be left to later. We take the overall goodness of an outcome to be a strictly increasing function of its goodness value for each individual. For a utilitarian, this function is a simple addition:

\[
\text{Utilitarianism for Outcomes: } g(o) = g_1(o) + \ldots + g_n(o).
\]

But for the Priority View, in the determination of the overall good, the benefits to the worse off count for more than the benefits to the better off. As a result, the welfare level of a worse-off person is given a higher moral weight in the aggregation: \(^6\)

\[
\text{Priority View for Outcomes: } g(o) = w(g_1(o)) + \ldots + w(g_n(o)).
\]

Here, the moral weight function \( w \) that we impose on the individual welfare levels is chosen in such a way that the impact of increments in individual welfare is always positive but successively decreasing,

\(^5\) Note, however, that Broome has recently become much more sympathetic to the possibility of drawing such fine distinctions. He now admits that it makes good sense, conceptually, to distinguish between a person's good and its contribution to the overall evaluation (cf. Broome, Valuing Lives, ts., 1999). But he still thinks that this distinction, while conceptually motivated, does not make any real difference: "Pace prioritarianism, a larger increment in individual welfare always makes a larger contribution to the overall goodness of a prospect.

\(^6\) This describes what Parfit, 'Equality or Priority?', calls the 'moderate' (teleological) version of the Priority View. He suggests that the extreme form of prioritarianism is Rawls's difference principle, which gives lexical priority to the improvements for the worse off, and not just a greater weight. For reasons to be explained below, in n. 15, I don't think this is quite right, but, in what follows, I shall concentrate on the moderate version. Also, I shall not consider deontological versions of the Priority View, according to which giving priority to the worse off is a normative requirement on action, which need not have any direct connection with the overall value of the resulting outcome.
i.e., w is strictly increasing and strictly concave: the graph for this transformation slopes upwards but curves downwards.\textsuperscript{7} The overall goodness of an outcome is the sum of its morally weighted individual goodness values.\textsuperscript{8}

Unlike utilitarianism, the Priority View imposes restrictions on interpersonal compensations: It makes it more difficult, and sometimes outright impossible, to justify sacrificing the worse off for the benefit of the better off.\textsuperscript{9} At the very least, the strict concavity of the weighting function w has this anti-utilitarian implication: If an amount of welfare is transferred from a worse-off person and distributed among the better off as additional increments, the result will always be worse overall, since the marginal contribution of such increments is decreasing.

What would a proponent of the Priority View say about the individual goodness of prospects? How good is a prospect \( x = (o_1, \ldots, o_n) \) for an individual i? I would suggest that, for a prioritarian, the goodness of a prospect for i is simply its expected goodness for i:

\[
Prioritarian Individual Goodness of Prospects: g(x) = \sum_{k=1,\ldots,m} P(S_k)g_i(o_k).
\]

Thus, my suggestion is that for a proponent of the Priority View, individual goodness is expectational – Bernoulli’s hypothesis is satisfied.

\textsuperscript{7} Due to the non-linearity of the weight function w, the Priority View for Outcomes might appear to presuppose that the individual goodness of an outcome is measured on a common ratio scale, rather than just on a mere interval scale. For it is easy to see that, if w is non-linear, the comparisons between the sums of w-weighted individual goodness values are not invariant under transformations of the zero point of the scale. However, this argument is based on the questionable assumption that the shape of the weight function is fixed independently of our choice of the numerical representation for individual goodness. If the weight function instead is allowed to undergo appropriate compensatory adjustments as we move from one such representation to another, the need for an absolute zero for individual goodness is obviated. These adjustments in the shape of weight function will cancel out the effect of the scale transformation. (I owe this observation to Magnus Jiborn.)

\textsuperscript{8} In a more general formulation of prioritarianism, the overall goodness of an outcome is only required to be some increasing transform of the sum of its morally weighted individual goodness values. The transform in question must be linear, if prioritarianism is to avoid implausible implications. But if the transform is linear, then it may safely be ignored.

\textsuperscript{9} If the weighting function w is such that that the contribution of each person’s welfare to the overall value of an outcome asymptotically approaches a fixed limit (the same for each individual) as that welfare increases, then the imposition of weights not only hampers impersonal compensations – it sometimes makes them impossible. For a fixed number of individuals, we will sometimes be unable to compensate a considerable loss to a person by any gains to others, however large. Example: Suppose the limit for individual contributions is, say, 100. That is, w(k) asymptotically approaches 100 as k increases to infinity. Suppose there are five individuals, 1, ..., 5, such w(g_i) = 90 for each i ≠ 1. Then the decrease in the welfare for individual 1 that diminishes his contribution by 50 units (i.e., diminishes w(g_i) by 50), cannot be compensated by any welfare gains, however large, for the remaining four individuals. For the total increase in the contributions made by these extra gains cannot ever be larger than 40 units.
By contrast, the Priority View on Broome's interpretation would have a different formula for the evaluation of the individual goodness of prospects. The prioritarian connection between individual utility and individual goodness, for both prospects and outcomes, is according to Broome given by the formula: \( u_i = w(g_i) \). Consequently, we get the following derivation: Since individual utility is expectational, \( u_i(x) \) is the probability-weighted sum of \( u_i(o_k) \), where \( o_k \) varies over the outcomes of \( x \) (1 ≤ k ≤ m). And since \( u_i = w(g_i) \), it follows that \( w(g_i(x)) \) is the probability-weighted sum of \( w(g_i(o_k)) \). Now, let \( m \) stand for the inverse of \( w \). That is, \( m \) is the function such that, for any real number \( r \), \( m(w(r)) = r \). If we apply this transformation \( m \) both to \( w(g_i(x)) \) and to each \( w(g_i(o_k)) \), we get the following result (given that \( m(w(g_i(x))) \) reduces to \( g_i(x) \)).

**Prioritarian Individual Goodness of Prospects – Broome’s version:**

\[
g_i(x) = m(\sum_{k=1}^{m} P(S_k)w(g_i(o_k)))
\]

This formula for the individual goodness of prospects relies on the function \( w \), which is the same concave moral weighting function that the proponents of the Priority View use in their evaluation of the overall goodness of outcomes. Thus, on Broome’s reading of prioritarianism, and contrary to my own proposal, moral weights have two roles: They are used not only in the determination of the overall value of an outcome but also in the determination of the individual value of an uncertain prospect.

Who is right? In defence of my proposal, I would like to point out that, for the proponents of the Priority View, the decreasing weight of individual goodness is essentially an expression of a moral concern. The improvements for the worse off are given moral priority as compared with the improvements for the better off. Interpersonal compensations are thereby severely restricted. I take this view to be a reaction to the well-known Rawlsian objection to utilitarianism: The trouble with the latter, says Rawls, is that it ‘does not take seriously the distinction between persons’. A utilitarian assumes the perspective of an impartial spectator who sympathetically identifies with all the persons involved and thereby fuses them all into one. Thereby, for a utilitarian, interpersonal compensations become as unproblematic as the intrapersonal compensations have always been according to rational choice theory: It may be rational for a person to sacrifice some of her objectives in order to realize her other goals. But if this diagnosis is right, i.e., if prioritarianism is driven by a concern for the distinctness of persons, then the priority weights should only be used in the interpersonal but not in the intrapersonal balancing of benefits and

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losses. In particular, these weights should not be used when we ask whether, from an *ex ante* perspective, an individual’s loss in one possible outcome is compensated, for that same individual, by his gain in another possible outcome. Consequently, there is no room for priority weights when we calculate the individual goodness of an uncertain prospect.\textsuperscript{11} The individual value of a prospect can be identified with the simple expectation of the individual value of the resulting outcome.

Now, given this purely expectational interpretation of individual goodness, the Priority View has to reject one of the central assumptions of the Interpersonal Addition Theorem – the Principle of Personal Good. To see this, compare two prospects that involve just two individuals, i and j, and two equi-probable states of nature, $S_1$ and $S_2$:

<table>
<thead>
<tr>
<th>Prospect x</th>
<th>Prospect y</th>
<th>$P(S_1) = P(S_2) = \frac{1}{2}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$S_1$</td>
<td>$S_1$</td>
<td>i</td>
</tr>
<tr>
<td>i 10</td>
<td>i 16</td>
<td>10</td>
</tr>
<tr>
<td>j 10</td>
<td>j 5</td>
<td>10</td>
</tr>
</tbody>
</table>

The values in the matrices specify how good the different outcomes are for i and j, respectively. In y, as compared with x, i’s welfare is increased by 6 units in $S_1$, and decreased by 5 units in $S_2$, while for j it is the other way round. In each case, the increase is slightly larger than the decrease, but we may suppose that, for a prioritarian, if both individuals are equally well off, the loss to one detracts more from the overall goodness of an outcome than a slightly larger gain to the other. In other words, we can assume that $w(10) - w(5) > w(16) - w(10)$. For each state, then, prospect x yields an outcome that is better overall than the corresponding outcome of prospect y. If overall betterness satisfies *dominance* (= ‘a prospect is better if each of its possible outcomes is better’), it follows that prospect x is overall better than prospect y. On the other hand, when it comes to individual betterness, prospect y is better for each individual than prospect x: Its expected goodness for each individual is greater, and we have argued that the individual goodness of a prospect is just its expected individual goodness. Thus, we get a counter-example to the Principle of Personal Good.\textsuperscript{12}

\textsuperscript{11} In personal communication, Derek Parfit has confirmed that this is how he himself would interpret the Priority View. The prioritarian weights are moral, not prudential. They have according to Parfit no role to play in the determination of the individual goodness of prospects.

\textsuperscript{12} Roger Crisp has suggested an alternative treatment of this example (in private communication). Like me, and unlike Broome, Crisp takes prospect y to be better for each individual than prospect x, from the prioritarian point of view, but he suggests that prioritarians should keep the Principle of Personal Good for prospects intact. Therefore, they must conclude that y is overall better than x, even though y yields a worse outcome.
This is a counter-example to clause (b) of the Principle of Personal Good: Prospect \( y \) is overall worse than prospect \( x \), even though it is better than \( x \) for each individual. To set up a counter-example to clause (a) of that principle, we need only to change the example so as to equalise the gains and losses in individual goodness. (We can replace in the matrix for prospect \( y \) both occurrences of 16 by 15.) Then prospect \( y \) is as good as \( x \) for each individual but \( x \) still is better than \( y \) overall: Individual losses in each of \( y \)'s outcomes detract more from the overall goodness of the outcome than the equal-sized individual gains.

This prioritarian counter-example to the Principle of Personal Good concerns only the application of that principle to (uncertain) prospects. For outcomes, the principle is fully valid. Since the overall goodness of an outcome is an increasing function of its priority-weighted individual goodness values, the overall goodness of an outcome will increase with each increment in individual welfare. Similarly, if two outcomes are equally good for everyone, they are equally good overall. Thus, the Priority View can still be seen as a fundamentally welfarist position as far as the evaluation of outcomes is concerned. At the same time, if the Priority View is interpreted in the way I have suggested, its proponents escape Broome's and Jensen's criticisms. If individual goodness is expectational, it can be measured in the standard way — in the way we measure utility. There is no need for a measurement of individual goodness that would be independent of the measurement of individual utility. We can directly elicit individual goodness values from the individual betterness orderings on risky prospects. But the Interpersonal Additional Theorem no longer follows, since one of its principal assumptions, the Principle of Personal Good for prospects, has been rejected.

If we let the individual goodness of a prospect be an expectational function, then it seems natural, if not mandatory, to do the same for overall goodness. We can let the overall goodness of a prospect \( x = (o_1, \ldots, o_m) \) be its expected overall goodness:

\[
g(x) = \sum_{k = 1, \ldots, m} P(S_k)g(o_k).
\]

If overall goodness is expectational, measuring it boils down to measuring overall utility. The two functions are identical, up to a positive linear transformation.

In section II, we have seen that prioritarians want to distinguish
between a person's good in a prospect and the contribution that this individual good makes to the overall goodness. The person's good is represented by function $g_i$. To represent the contribution of that person's good to the overall goodness of a prospect is easy. The contribution of an individual $i$ to the overall value of an outcome $o$, which we may denote by $c_i(o)$, equals the morally weighted goodness value of $o$ for $i$: $c_i(o) = w(g_i(o))$. And the contribution of $i$ to the overall value of a prospect $x$, equals the expected value of $i$'s contribution to $x$'s outcome:

$$c_i(x) = \Sigma_k P(S_k)c_i(o_k).$$

As is easy to see, the overall goodness of the prospect is then just the sum of such individual contributions:

$$g(x) = \Sigma_i P(S_k)g(o_k) = \Sigma_i P(S_k)\Sigma_i w(g_i(o_k)) = \Sigma_i \Sigma_k P(S_k)w(g_i(o_k)) = \Sigma_i P(S_k)c_i(o_k) = \Sigma_i c_i(x).$$

The function $c_i$, which measures the individual contribution, is expectation-al, just like the function $g_i$, which measures individual goodness. However, these two expectation-al functions are not just positive linear transformations of each other, since the prospects orderings that are represented by $c_i$ and $g_i$, respectively, do not coincide if the Principle of Personal Good is rejected: A larger increment in individual goodness of a prospect can make a smaller contribution to overall goodness. In our example above, prospect $y$ is better for $i$ than prospect $x$, $g_i(y) > g_i(x)$, but the contribution made by $i$'s welfare to the overall value of $y$ is smaller, $c_i(y) < c_i(x)$.

The same applies to the other individual, $j$.

That's how my interpretation of the Priority View is supposed to work. But as far as its underlying philosophical motivation is concerned, I think that a certain qualification is needed. Let me explain. On the Priority View, being worse off is morally bad. In this context, however, 'being worse off' is not meant to refer to a relation between one individual and another. Rather, it refers to a relation between how an individual is and how he might have been. In this respect, the view in question differs from egalitarianism. As Parfit puts it:

[...] on the Priority View, we do not believe in equality. We do not think it in itself bad, or unjust, that some people are worse off than others. [...] what is bad is not that these people are worse off than others. It is rather that they are worse off than they might have been.

14 As we have assumed, $w(10) - w(5) > w(16) - w(10)$. This implies that contribution $c_i(y)$, which equals $\frac{1}{2}w(16) + \frac{1}{2}w(5)$, must be smaller than $c_i(x)$, which equals $\frac{1}{2}w(10) + \frac{1}{2}w(10)$.

15 This shows, by the way, that it is incorrect to interpret Rawls's difference principle as the extreme, lexical form of the Priority View. Rawls's principle gives absolute priority to those people who are worse off than all others. The priority given to the worse off is not, on that principle, due to the fact that these people are 'worse off than they might
worse off [...] would matter just as much even if there were no others who were better off.\textsuperscript{16}

This prioritarian emphasis on the comparisons of how an individual is with how he ‘might have been’, as opposed to the egalitarian comparisons of one individual with others, makes it clear that the function of the moral weights for Parfit cannot simply be to impose restrictions on interpersonal compensations of losses for the worse off by gains for the better off. If this were their only role, moral weights could be made dependent on the ‘relative’ levels of individual goodness. Benefits and losses to a given person could be allowed to have a larger moral impact if other persons actually were better off. (I owe this observation to Ingmar Persson.) In so far as this relativization to others is disallowed, however, the function of moral weights must be more far-reaching. They must be taken to express a moral concern for the welfare of each individual taken separately – a concern that increases with decreases in that individual’s welfare, without being dependent on the welfare of others.

I conclude this section with some further comments on the relationship between prioritarianism and egalitarian morality. In section 9.3 of \textit{Weighing Goods}, Broome considers a choice between the following two prospects that involve two individuals and two equiprobable states:

\[
\begin{array}{ccc}
\text{Prospect } x & \text{Prospect } y \\
S_1 & S_2 & S_1 & S_2 \\
i & 2 & 1 & 2 & 1 \\
j & 2 & 1 & 1 & 2 \\
\end{array}
\]

P(S_1) = P(S_2) = \frac{1}{2}

Broome suggests that for an egalitarian prospect \( x \) should be preferable to prospect \( y \): The former guarantees equality in outcome, while the latter guarantees inequality. For a utilitarian, on the other hand, the two prospects are equally good. Both of them give each individual the same expectation of individual goodness: 2 or 1 with equal probability.\textsuperscript{17} A natural question, then, for us to ask is what a prioritarian

have been’. If their welfare level were arbitrarily increased but they would still be worse off than others, improving their lot would still have the same (absolute) priority.

\textsuperscript{16} Parfit, p. 23.

\textsuperscript{17} Qualification: One might think of a version of egalitarianism that would disregard the inequality in outcomes in its evaluation of prospects. As long as two prospects, as in our example, give the same expected welfare to each individual, they would be considered on this version of egalitarianism to be equally good overall, despite the fact that one of them is bound to result in an equal outcome while the other guarantees that the outcome will be unequal. The problem with such egalitarianism, however, is that it would violate the principle of dominance for overall betterness. To see that, recall the example from sect. III, with two equiprobable states, two individuals, \( i \) and \( j \), and two prospects, \( x \) and \( y \). Prospect \( x \) gives the same welfare benefits, equal to 10, to each individual under each state, while \( y \) gives 16 to \( i \) and 5 to \( j \) under one state, and under the
should say about this case. (I am indebted to Marc Fleurbaey for raising the issue.) The answer is clear: the Priority View, just as utilitarianism, will imply that prospects x and y are equally good overall. As we have seen above, the overall goodness of a prospect is the sum of the individual contributions to the overall goodness of this prospect. The contribution of each individual is counted separately and independently of the contribution of others, just as in utilitarianism. In our example, the contribution of each individual to each of the prospects is the same,

\[ c_i(x) = \frac{1}{2}w(2) + \frac{1}{2}w(1) = c_i(y) \quad \text{and} \quad c_j(x) = \frac{1}{2}w(2) + \frac{1}{2}w(1) = c_j(y). \]

Consequently, the overall value of both prospects must be equal.

As we have seen, Parfit is at pains to emphasize that, on the Priority View, the benefits to a person should count just as much independently of how other people fare. Consequently, on that view, and contrary to egalitarianism, the welfare of each individual in various outcomes makes a separable contribution to the overall goodness of a prospect, independently of the welfare of others. That separability of individual contributions is what distinguishes prioritarianism from the egalitarian morality has recently been forcefully argued by Broome. On this issue, Broome and I are in agreement.\textsuperscript{18}

IV. PRIORITARIANISM AND OVERALL GOODNESS:
THE ONE-PERSON CASE

As we have seen, Parfit’s description of prioritarianism suggests that moral weights should be used in the determination of the individual contribution to overall goodness in all cases, even when there are no other state it gives 5 to i and 16 to j. As we may assume, egalitarians will consider each outcome of y to be overall worse than the corresponding outcome of x, since the aggregated welfare is only slightly larger in the outcome of y but it is very unevenly distributed. At the same time, however, the presently considered version of egalitarianism for prospects would imply that prospect y is overall better than prospect x, since it promises the same expected welfare to both individuals and that welfare is somewhat higher than their expected welfare in x. Consequently, dominance is violated. Note that this is essentially the same problem as the one mentioned above, in n. 12, in connection with the Priority View.

\textsuperscript{18} Cf. Broome, ‘Equality versus Priority: A Useful Distinction’, http://aran.univ-pau.fr/ee/page3.html, 2001. See, however, at the same website, Marc Fleurbaey, ‘Equality versus Priority: How Relevant is this Distinction?’, 2001, for an interesting criticism of the idea that the Priority View is fundamentally opposed to egalitarianism. Note also that one might defend a weak version of egalitarianism that respects the separability requirement: If the aggregated expected welfare of a prospect is taken to be lexically prior to the equality considerations, then increasing the expected welfare of an individual, while keeping everything else constant, will always make the prospect overall better (even though the inequality of a prospect might thereby increase). Thus, in this sense, the individual contributions to the overall value of a prospect would be separable on this egalitarian view.
others who are better off than the individual under consideration. Probably, then, Parfit would maintain that the moral weighting function should be used to determine the overall goodness of an outcome not only when no others are better off but also when there are no others, i.e., when the outcome involves only one person. On such a view, we need to distinguish between the individual goodness of a one-person outcome and that outcome's overall goodness. Similarly, for one-person prospects, it should be possible to distinguish between how good such a prospect is for the person involved and how good it is overall (i.e., morally). It is only for this latter issue that moral weights are allowed to play a role.\textsuperscript{19} To elaborate on this point, let us recall that, for a prioritarian, the overall goodness of an outcome is the sum of its morally weighted individual goodness values. The moral weights will then play a role for the overall goodness even in a one-person case, i.e., a case in which the set of individuals equals \{i\}, for some individual i. We have, for that case, the following formula:

\textbf{Robinson Outcomes:} \( g(o) = w(g_i(o)) \).

The overall goodness of a one-person outcome thus differs from its individual goodness. This difference, however, will not show in the ordering of Robinson outcomes that involve one and the same person i. For any two such outcomes o and o', o is overall better than o' iff o is better for i than o'.

But what about \textit{prospects}? Prioritarianism, on my interpretation, leads to a striking divergence between prudence and the prioritarian morality in one-person cases. Thus, suppose there are just two possible equi-probable states, S\textsubscript{1} and S\textsubscript{2}, and let i have a choice between a risky prospect \( y = (o', o'') \) and a safe prospect \( x = (o, o) \). Assume that o' is better for i than o, which in turn is better for i than o''. Suppose, however, that the difference between \( g_i(o') \) and \( g_i(o) \) is larger than the difference between \( g_i(o) \) and \( g_i(o'') \). In other words, as compared with o, which is the guaranteed outcome of x, i's gain in o' is larger than his loss in o'' and these two possible outcomes of y are equiprobable. Then, prudence dictates that i should choose the risky prospect y: \( g_i(x) < g_i(y) \), given that individual goodness is expectational, as we have assumed. Suppose, however, that i's smaller loss in o'' outweighs his larger gain in o', after the transformation with w:

\[ w(g_i(o')) - w(g_i(o)) < w(g_i(o)) - w(g_i(o'')). \]

Or, what amounts to the same,

\[ w(g_i(o)) > 
\frac{1}{2}w(g_i(o')) + 
\frac{1}{2}w(g_i(o'')). \]

\textsuperscript{19} In personal communication, Derek Parfit has confirmed that this is how he himself would interpret the Priority View.
Prioritarianism for Prospects

Then prioritarian morality favours x, even though prudence dictates y. The safe prospect x is better overall. Its overall value equals the overall value of its certain outcome, $w(g_1(o))$. But the overall value of the risky prospect y is smaller: It equals the expected overall value of its equiprobable outcomes, $\frac{1}{2}w(g_1(o')) + \frac{1}{2}w(g_1(o''))$.

That prudence and morality can diverge in Robinson-type cases may seem implausible to some prioritarians. If, contrary to Parfit's suggestion, the only function of moral weights were to hinder unacceptable interpersonal compensations, then it would be natural to argue for the coincidence of prudence and morality in one-person cases. This would require that such cases should be treated differently from those that involve several persons. In the determination of overall goodness, moral weights would need to be ignored as long as only one person is involved, and they would only be brought into play in many-person cases.

However, this special treatment of one-person cases would result in implausible consequences. On such a 'mixed' view, as long as Robinson is alone on his island, prioritarian morality would give him purely prudential recommendations. Or perhaps it would give him no recommendations at all, if we suppose that morality is silent as long as there are no other persons that the agent needs to consider (I am indebted to Peter Vallentyne for this last suggestion as to how the 'mixed' view might be interpreted). But things change as soon as Man Friday enters the picture. Then moral weights are brought into play. Consequently, with Friday present, Robinson is no longer morally allowed to go for his better prospect (the risky one), even if – as we might suppose – his choice would not affect Friday in any way. If Friday's welfare given each state is the same whatever prospect Robinson chooses and if Robinson's larger gain in one state weighs less, morally, than his smaller loss in the other (equiprobable) state, then, with Friday present, the risky prospect is overall worse than the riskless one.

Such an extreme sensitivity to 'other persons being present' is counter-intuitive. Surely, if Robinson's choice cannot affect Friday, bringing the latter into the picture should not morally matter according to prioritarianism. If the riskless prospect is morally preferable to the risky one with Friday present, and the outcome for Friday is not affected by the choice between these prospects, then it is reasonable to require that the riskless prospect be morally preferable also when Friday is absent. We get this desirable implication if we treat one-person cases in the same way as situations that involve several persons.
V. UNCERTAINTY ALL THE WAY DOWN?

On my interpretation of prioritarianism, the distinction between prospects and outcomes is taken seriously. For an outcome, its overall value is the sum of its morally weighted individual values. But for a prospect, the relationship between its overall value and its value for various individuals is much less straightforward and indirect. In fact, there is no functional dependence in this case: Two prospects may be equally good for each individual and still differ as far as their overall value is concerned.

This means that, on my interpretation, a prioritarian must take seriously the distinction between prospects and outcomes. He cannot treat outcomes as ‘small worlds’ in Savage’s sense, i.e., as situations that are assumed to be free from uncertainty only provisionally, for the problem at hand.\(^{20}\) He cannot adhere to the view, so popular among many decision theorists, that uncertainty really is present ‘all the way down’ and can always be discerned, in any outcome, if we only use a sufficiently strong magnifying glass. To illustrate this popular view, consider the famous example of Savage’s omelette:\(^{21}\) To make an omelette, I have already broken five eggs into the bowl. One egg remains. Should I break it into the bowl, with the other eggs, or into a separate saucer? If I do the latter, I will have a saucer to wash. If I do the former and the last egg turns out to be rotten, I will have to throw out everything. For the purposes of my decision problem I can treat this possibility as one possible outcome. From a more discerning perspective, however, the ‘no omelette’ outcome can be seen as shot with uncertainties: What will happen if I don’t get my omelette? Will I miss my lunch altogether, and, if so, how will it affect my mood and behaviour? Will I overeat in the evening, will I be irritable for the rest of the day, and so on? And what might this lead to, in turn? Thus, if we wish, we could re-describe the outcome in question as an uncertain prospect which, depending on various factors, can result in different more specific outcomes. These can in their turn be re-described as uncertain prospects, and so on.

In this sense, Savage’s outcomes are ‘small’ possible worlds, as he puts it, rather than ‘grand worlds’ without any residuum of potential uncertainty. The reason he adduces for the small-worlds approach is that of practicality: The decisions we make in real life are never made with a view to all the uncountable uncertainties that may arise in

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\(^{21}\) Ibid., 2.5.
connection with our actions.\textsuperscript{22} Behind this practical point, one might add, there is an underlying theoretical reason: \textit{Pace} behaviourism, preferring is an intentional attitude, which means that preference at least to some extent is \textit{representation-dependent}.\textsuperscript{23} Since our representational capacities are limited, 'grand worlds' cannot be \textit{fully} represented, in all their details. Therefore, if a decision theorist wanted to start from an agent's preferences over grand outcomes, he would have to allow for the possibility that one and the same grand outcome might be valued differently by the agent depending on how this outcome is represented.\textsuperscript{24} Restriction to small outcomes allows the decision-theorist to avoid this difficulty. As long as he keeps to small outcomes, the outcomes and their propositional representations need not be distinguished from each other.

Prioritarians who take seriously the distinction between prospects and outcomes must opt for the 'grand' interpretation of outcomes. The outcomes must be comprehensive possible worlds, which, in principle, provide a determinate answer to every question of fact. Otherwise, if an outcome might just as well be seen as a prospect, when we use a larger magnification, it would be difficult to defend a theory that treats prospects and outcomes differently. Thus, the question arises: Can a prioritarian assume the existence of \textit{representation-independent} betterness orderings of grand outcomes?

The answer, it seems, must in part depend on the connection between betterness and preference. One possibility is that this connection is quite close. In particular, an ordering of betterness may be grounded in pro-attitudes of some kind, which are just as intentional as preferences.\textsuperscript{25} If these attitudes are directly aimed at the relata of the ordering, rather than at various general good-making features of the relata, the prospects for a univocal betterness ordering of grand outcomes look very bleak indeed. But the possibility remains that the connection between the ordering of betterness and our pro-attitudes is not as straightforward. It may well be that a betterness ordering of comprehensive possible worlds should be seen as a theoretical construct. If at all, such a construct would only be indirectly based in our pro- and contra-attitudes of certain kinds. Rather than aiming at

\textsuperscript{22} Ibid., 5.5.
\textsuperscript{24} Another worry in connection with 'grand' outcomes is whether the idea of such outcomes is conceptually coherent, to begin with. Here, I assume that the answer is, 'Yes', i.e., that it is meaningful to postulate such comprehensive possible ways for the world to be. But I am fully aware that this assumption itself is controversial.
\textsuperscript{25} Cf. Schick.
comprehensive possible worlds, the attitudes that underlie the construction could be directed at various general features of worlds (in particular, at various aspects of individual well-being). Such indirectly constructed betterness orderings need not be fundamentally representation-sensitive. As long as this possibility remains, the interpretation of prioritarianism that has been suggested in this paper does not make this view doomed from the start.

VI. CONCLUSION

Let me sum up. I have argued that Broome’s Interpersonal Addition Theorem does not impose any constraints on the Priority View. On my interpretation of prioritarianism, that view rejects one of the central assumptions of the theorem, The Principle of Personal Good. The prioritarian weights are meant to have a purely moral impact. They are expressions of our moral concern for each individual but they have no role to play in measuring individual welfare.

If the Principle of Personal Good fails, a prospect that is better for each individual may well be morally worse (i.e., worse overall). Still, this does not make prioritarianism a non-welfarist view: As far as the outcomes are concerned, the principle of personal good holds without restrictions: An outcome that is better for each person will also be better overall. As an additional bonus, this interpretation of prioritarianism allows us to use standard expectational measures for evaluations of prospects: Both individual goodness and overall goodness can be seen as expectational functions. On the negative side, however, the proposed interpretation treats outcomes and prospects in radically different ways. It is incompatible with the traditional decision-theoretical view according to which, as we move from prospects to outcomes, there is uncertainty all the way down. Still, this is a cost that prioritarians may be prepared to live with.

In this paper, I have assumed that individual welfare is measured by an expectational function. Needless to say, this assumption might be questioned. There might be reasons for thinking that the individual goodness of a prospect should be sensitive to the riskiness of the prospect in question. One way of taking care of such sensitivity to risk consists in imposing some appropriate transformation \( v \) on the individual goodness of outcomes in the calculations of the individual goodness of a prospect. We could let \( g(x) \) equal the probability-weighted sum of the \( v \)-transforms of the \( g \)-values of \( x \)'s outcomes. If risk detracts from the individual value of a prospect, then \( v \) will be strictly concave, just as is our function \( w \). However, on my view (and pace Broome), prioritarians should deny that this ‘prudential’ weight function \( v \) has anything to do with the moral weight function \( w \). The two functions
may well differ from each other. A prudential concern about risk and moral concern for persons are different things.26

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26 This essay is a short and relatively informal version of my ‘Prioritarianism and Uncertainty: On the Interpersonal Addition Theorem and the Priority View’, Exploring Practical Philosophy: From Action to Values, ed. D. Egonsson, J. Josefsson, B. Petersson and T. Rønnow-Rasmussen, 2001. For comments and discussion I am indebted to Gustaf Arrhenius, John Broome, Johan Brännmark, Krister Bykvist, Erik Carlson, Roger Crisp, Sven Danielsson, Dan Egonsson, Marc Fleurbaey, Magnus Jiborn, Mats Johansson, Karsten Klint Jensen, Philippe Mongin, Derek Parfit, Erik Persson, Ingmar Persson, Toni Rønnow-Rasmussen, and Paul Weirich. Also, I wish to thank Peter Vallentyne for his very helpful and encouraging referee’s report.