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CONTRIBUTORS

Anthony B. Atkinson is research professor at the department of economics, University of Oxford, Kt., FBA, fellow of the Econometric Society, fellow of the European Economic Association, foreign honorary member of the American Academy of Arts and Sciences, and foreign honorary member of the American Economic Association. His research interests include public economics, economics of income distribution, and poverty and security.

Gustaf Arrhenius is professor of practical philosophy at Stockholm University, Torgny Segerstedt Pro Futura Scientia Fellow at Swedish Collegium of Advanced Study (SCAS), and co-chair of the Franco-Swedish program in economics and philosophy at Collège d’études mondiales and SCAS. His research interests are primarily in moral and political philosophy, especially issues pertaining to the intersection between moral and political philosophy and the medical and social sciences. He is the author of Population Ethics (Oxford University Press, forthcoming), and his papers have appeared in journal such as Economics & Philosophy, Philosophical Studies, and Utilitas.

Yukiko Asada is associate professor in the department of community health and epidemiology at Dalhousie University. Her work investigates ethical assumptions underlying quantitative methods used in population health. Her published work includes Health Inequality: Morality and Measurement (University of Toronto Press, 2007).

Nick Beckstead is a Ph.D. candidate in philosophy at Rutgers University. His primary research interests include normative ethics, applied ethics, and decision theory.

Norman Daniels, Ph.D., is Mary B. Saltonstall Professor of ethics and population health in the department of global health and population at Harvard School of Public Health. Formerly chair of the philosophy department at Tufts University, where he taught from 1969 to 2002, his most recent books include Just Health: Meeting Health Needs Fairly (Cambridge, 2008); Setting Limits Fairly: Learning to Share Resources for Health, 2nd edition (Oxford, 2008); From Chance to Choice: Genetics and Justice (2000); and Is Inequality Bad for Our Health? (2000). His research is on justice and health policy, including priority setting in health systems, fairness and health systems reform, health inequalities, and intergenerational justice. He directs the ethics concentration
Uncertainty and Justifiability to Each Person
RESPONSE TO FLEURBAEY AND VOORHOEVE
Johann Frick

It is a sad truism that tradeoffs between the well-being of different individuals are sometimes unavoidable in medicine and population-level health policy. We can distinguish two ways in which such tradeoffs may arise. On the one hand, there are situations where, in order to further the interests of some (by bestowing a benefit or averting a harm), we must impose some cost or disadvantage on other persons. The group of potential beneficiaries and the group of potential victims are known in advance and non-overlapping. (Such tradeoffs also come in probabilistic variants, in which to give some people a chance of benefiting we must impose on others a risk of harm.) By definition, actions or policies that fall into this first category are not in the ex ante interest of everyone affected. The tradeoffs involved are what we may call competitive ex ante.

On the other hand, there are tradeoffs that are merely competitive ex post. Suppose that a risky medical intervention is administered to multiple individuals. In such cases, especially in situations involving large numbers of patients, statistical knowledge often allows us to predict with a high degree of confidence the overall pattern of outcomes that the intervention will produce: we can foresee that X percent of patients will benefit to this-and-that extent, whereas Y percent will be harmed to such-and-such a degree. However, with regard to the outcome that our intervention will have for particular individuals, we find ourselves behind a "natural veil of ignorance." Although we know the approximate number of individuals whose well-being will be promoted or set back, we cannot know in advance who will be benefited and who

A version of this chapter was presented at the Foundation Brocher in July 2010. For helpful feedback and criticism, I thank Eric Beerbohm, Selim Berker, Dan Brock, Norman Daniels, Tom Dougherty, Nir Eyal, Marc Fleurbaey, Samia Hurst, Frances Kamm, Dave Langlois, Ekédi Mpondo-Dika, Tim Scanlon, Gerard Vong, Alex Voorhoeve, Dan Wikler, and two anonymous referees, as well as the participants in the graduate fellows' seminar at the Edmond J. Safra Center for Ethics at Harvard University.
will be disadvantaged. Tradeoffs of this type are not competitive *ex ante*; if the gamble offered by the risky intervention is sufficiently attractive, it may be in every patient's interest *ex ante* to receive the risky treatment—despite the fact that, *ex post*, there will be winners and losers.

In their paper, "Decide As You Would with Full Information! An Argument Against *ex ante* Pareto," Marc Fleurbaey and Alex Voorhoeve argue against a popular principle for deciding how to act in cases involving tradeoffs of this latter kind. According to

*Ex Ante Pareto*: "If an alternative has higher expected utility for every person than every other alternative, then this alternative should be chosen." (Fleurbaey and Voorhoeve, Chapter 8, p. 114, this volume).

Despite its prima facie plausibility, Fleurbaey and Voorhoeve believe that *ex ante* Pareto violates a "basic principle of rationality," the Principle of Full Information (PFI). In this response, I critically examine the key claims of their chapter.

**Three Cases**

Fleurbaey and Voorhoeve's core argument is built around three stylized cases, summarized in Table 9.1. In each of these cases, Teresa, a medical decision maker, has to decide which of two medicines to produce and administer to one or more young children to prevent them from going completely blind (which would give them a utility-level of 0.6).

In the Single-Person Case, Teresa must choose whether to give Adam medicine $M_e$ that will make him considerably visually impaired with certainty (utility = 0.8) or the risky medicine $M_r$, which gives him a 50 percent chance of retaining excellent vision (utility = 1) at the cost of a 50 percent chance of becoming severely visually impaired (utility = 0.65). Fleurbaey and Voorhoeve maintain that Teresa has good moral reason to take this gamble on Adam's behalf because $M_r$ gives him greater expected utility than does $M_e$. In cases involving only a single individual, reasoning in accord with *ex ante* Pareto is morally unproblematic.

In Visual Impairment Case 2, Teresa must treat two children. Whereas $M_e$ would give both Adam and Bill 0.8 for sure, $M_e$ will allow Adam to achieve 1 while giving Bill 0.65 with certainty. The tradeoff here is competitive *ex ante* because only Adam will gain from Teresa's choosing $M_e$ over $M_r$, whereas Bill is sure to be disadvantaged by this decision.

The key case for Fleurbaey and Voorhoeve, however, is Visual Impairment Case 1. Here, Teresa must choose between giving both patients $M_e$ or the risky medicine $M_r$, whose results for each patient are uncertain: in state of world $s_1$, Adam will receive 1 whereas Bill gets 0.65; if the state of world is $s_2$, the results will be the reverse. $s_1$ and $s_2$ are equiprobable, but Teresa does not know which obtains. What she does know—is that the individual outcomes under $M_r$ are *perfectly inversely correlated*—is that the overall pattern of outcomes will be the same as would result from choosing $M_e$ in Visual Impairment Case 2.

Which medicine ought Teresa to choose in Visual Impairment Case 1? *Ex ante* Pareto gives a straightforward answer: just as in the Single-Person Case, Teresa ought to select the risky medicine $M_e$ because, for both Adam and Bill, this option has higher expected utility than does $M_e$.

By contrast, Fleurbaey and Voorhoeve aim to show that "an egalitarian who... cares both about reducing outcome inequality and about increasing

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1 Economists and decision theorists sometimes draw the following distinction between "uncertainty" and "risk": situations involving risk have an unknown outcome, but we do know the underlying distribution of different possible outcomes and their respective probabilities. In cases of uncertainty, the outcome is also unknown, but we don't know what the underlying distribution looks like. In the following, I depart from this convention. To me, "risk" will signify the likelihood, probabilistically quantified, of some (bad) outcome occurring. "Uncertainty" is the epistemologically neutral statement of not knowing which outcome will occur. However, as I understand the latter term, it does not imply ignorance about the probabilities of the various possible outcomes.

2 Fleurbaey and Voorhoeve do not specify the causal mechanism by which the effects of medicine $M_r$ come to be perfectly inversely correlated, rather than being (as would be more common in medicine) probabilistically independent. This stylized assumption need not detain us, however. The moral problem that Fleurbaey and Voorhoeve aim to investigate also arises under more realistic conditions. Even when the individual outcomes of a risky action are probabilistically independent, we can often

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**Table 9.1** The distribution of utility in the three cases

<table>
<thead>
<tr>
<th>Action</th>
<th>Person</th>
<th>States of the world (equiprobable)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$s_1$</td>
</tr>
<tr>
<td>SINGLE-PERSON CASE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$M_e$</td>
<td>Adam</td>
<td>0.8</td>
</tr>
<tr>
<td>$M_r$</td>
<td>Adam</td>
<td>1</td>
</tr>
<tr>
<td>VISUAL IMPAIRMENT CASE 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$M_e$</td>
<td>Adam</td>
<td>0.8</td>
</tr>
<tr>
<td></td>
<td>Bill</td>
<td>0.8</td>
</tr>
<tr>
<td>$M_r$</td>
<td>Adam</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Bill</td>
<td>0.65</td>
</tr>
<tr>
<td>VISUAL IMPAIRMENT CASE 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$M_e$</td>
<td>Adam</td>
<td>0.8</td>
</tr>
<tr>
<td></td>
<td>Bill</td>
<td>0.8</td>
</tr>
<tr>
<td>$M_r$</td>
<td>Adam</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Bill</td>
<td>0.65</td>
</tr>
</tbody>
</table>
individuals' well-being" ought to reject the conclusion suggested by ex ante Pareto (Fleurbaey and Voorhoeve 2013, Chapter 8, this volume). In a footnote to this passage, they add: "our argument against ex ante Pareto is equally effective if one instead gives priority to the worse off because one is a prioritarian who gives additional weight to utility gains when they occur at a lower level of absolute utility."

On the strength of these passages alone, it may seem like Fleurbaey and Voorhoeve have set themselves an excessively simple task. Both outcome (or "telic") egalitarianism and prioritarianism are impersonal principles that rank outcomes based solely on their overall pattern of distribution. If we assume the truth of one of these positions, it is not hard to see that this will contradict the deliverances of ex ante Pareto. A plausible outcome-egalitarianism will clearly recommend that Teresa pick $M_1$ in Visual Impairment Case 1 because this achieves an equal distribution at only a small loss in total well-being. Prioritarianism gives the same verdict, because, under $M_{P'}$, the worst off fare considerably better than under $M_P$.

If this were the extent of Fleurbaey and Voorhoeve's opposition to ex ante Pareto, it would be of limited dialectical power. It would "refute" ex ante Pareto by assuming the truth of an impersonal position that implies its falsity. Such a move would be only as strong as the outcome egalitarian or prioritarian intuitions that underlie it. It is safe to assume that it would fail to persuade a committed proponent of ex ante Pareto.⁴

In fact, however, Fleurbaey and Voorhoeve have a further, more interesting objection to ex ante Pareto. The intuitive attraction of ex ante Pareto is that it is an "individualistic" moral principle. Without requiring us to appeal to controversial interpersonal distributive principles, it seems that an action that satisfies ex ante Pareto can be justified to each affected individual in the following manner: "I am doing on your behalf what you yourself would have done, had you been solely concerned with maximizing your own expected utility."

It is precisely this individualistic appeal of ex ante Pareto that Fleurbaey and Voorhoeve set out to challenge. They aim to show that, in cases like Visual Impairment Case 1, the actions endorsed by ex ante Pareto are not, as a matter of fact, justifiable to each person. They therefore fail a broadly contractualist standard of moral rightness according to which an action is right if and only if it is justifiable to each person.

T.M. Scanlon, the most prominent defender of moral contractualism, frames this standard as follows: an action is justifiable to each person if and only if a principle licensing the performance of the action could not be reasonably rejected by any individual for personal reasons. Personal reasons, for Scanlon, are "reasons that are...tied to the well-being, claims, or status of individuals in [a] particular position" (Scanlon 1998, p. 219). They exclude appeals to how an action will affect other individuals, as well as to impersonal concerns, such as the goodness of the overall outcome that the action will produce. A principle licensing the performance of the action in question cannot be reasonably rejected if any alternative action would give another person yet stronger reasons for rejection.

In Visual Impairment Case 2, contractualist reasoning clearly favors the selection of medicine $M_x$ over the alternative, $M_y$. Bill has stronger personal grounds for rejecting a principle licensing Teresa to pick $M_y$ (it will make him severely visually impaired with certainty, when he could have been merely significantly visually impaired), than has Adam against $M_y$ (he will be significantly visually impaired when he could have remained fully sighted). As Fleurbaey and Voorhoeve put it: "it is unjustifiable to sacrifice the interests of someone who...will be no better off than the other person under either policy in order to make that other person better off still, at least for the size of the benefits under consideration" (Fleurbaey and Voorhoeve 2013, Chapter 8, p. 113, this volume).

By contrast, it seems far from clear that, in a choice between $M_x$ and $M_{P'}$, it wouldn't be justifiable to each person to choose the risky medicine $M_x$. Defenders of ex ante Pareto could avail themselves of the following powerful argument:

The Argument from the Single-Person Case: In terms of expected benefit, the gamble that $M_x$ offers to Adam and Bill in Visual Impairment Case 1 is just the same as the one Adam was offered in the Single-Person Case. And, in that case, Fleurbaey and Voorhoeve agreed that it would be justifiable to Adam to choose $M_x$ over $M_{P'}$. By giving both patients $M_{P'}$, Teresa therefore does for both Adam and Bill what a guardian concerned solely with promoting Adam's interests ought to do for him in a case in which he is her only concern. Given that $M_x$ was deemed justifiable to Adam in the Single-Person Case, how could it not be justifiable to both Adam and Bill in Visual Impairment Case 1?

I confess to finding this argument extremely plausible. If the Argument from the Single-Person Case goes through, however, then—although there may be impersonal grounds for privileging medicine $M_x$ in Visual Impairment

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⁴ As a matter of fact, Fleurbaey and Voorhoeve's dialectical position would be even more precarious than that because they are on record as critics of both telic egalitarianism and prioritarianism. For arguments against prioritarianism, see Michael Otsuka and Alex Voorhoeve (2009); for objections to telic egalitarianism, see Alex Voorhoeve and Marc Fleurbaey (in press).
Case 1—from the point of view of justifiability to each person, there is no objection to Teresa’s selecting $M_\rho$.

In the next section, I review Fleurbaey and Voorhoeve’s objections to the argument from the Single-Person Case. I will attempt to show that their main argument, the Argument from Omniscient Guardians, is defective because it overlooks the normative significance of uncertainty.

Nothing I say in the following is meant to provide an all-things-considered account of what we ought to do in Visual Impairment Case 1. I agree with Fleurbaey and Voorhoeve that, in addition to making our action justifiable to every person, we may also have reason to attend to impersonal concerns, such as outcome equality or priority for the worst off. (I return to these points in the final section of this chapter.) My aim in this chapter is merely to show that, to the extent that these impersonal concerns are valid in Visual Impairment Case 1, they pull in the opposite direction as arguments from justifiability to each person.

The Argument from Omniscient Guardians

Fleurbaey and Voorhoeve consider the argument from the Single-Person Case, but attempt to rebut it with the following argument, which I summarize from their chapter:

_The Argument from Omniscient Guardians:_ Whenever possible, Teresa ought to base her decision on what fully informed guardians would ask her to do on their charges’ behalf. Unlike Teresa, such omniscient guardians know which of $s_i$ and $s_\rho$ obtains and would thus be able to object to Teresa’s choice of $M_\rho$ if they foresaw that it was contrary to their charge’s “true interest.” If Teresa was able to consult such omniscient guardians and was informed by one of them that his charge would lose out under $M_\rho$, she would no longer regard it as justifiable to his charge to select $M_\rho$ because this would mean knowingly sacrificing the interests of someone who, as things turn out, will be no better off than the other person under either policy in order to make that other person better off still.

In reality, of course, Teresa does not know which state of the world obtains; however, she does know for sure that one of $s_i$ and $s_\rho$ obtains. Consequently, Teresa can infer that, if she were advised by fully informed guardians, she would necessarily regard the choice of $M_\rho$ as unjustifiable to either Adam or Bill.

Moreover, when she can, Teresa should therefore adopt the judgments about the justifiability to each that she can infer she would have under full information.

Despite not knowing which state of the world obtains, Teresa ought, therefore, to conclude that giving $M_\rho$ fails the test of justifiability to each person.

Fleurbaey and Voorhoeve claim that this conclusion is required by a “basic principle of rationality,” which they dub the

*Principle of Full Information, Part I:* “When one knows that, in every state of the world with positive probability, one would rightly rank two alternatives in a particular way, then one should so rank them.” (Fleurbaey and Voorhoeve 2013, Chapter 8, p. 120, this volume).

What are we to make of this argument? It seems to me that talk of what Teresa would regard as unjustifiable to Adam or Bill upon consulting a “fully informed guardian” is just a picturesque way of saying that if Teresa knew for sure that $s_i (s_\rho)$ obtains, she would rightly regard it as unjustifiable to Bill (Adam) to choose $M_\rho$. The Argument from Omniscient Guardians can thus be restated as follows:

1. If Teresa knew that $s_i$ obtains, her choosing $M_\rho$ would be unjustifiable to Bill.
2. If Teresa knew that $s_\rho$ obtains, her choosing $M_\rho$ would be unjustifiable to Adam.
3. Teresa knows that either $s_i$ or $s_\rho$ obtains.
4. Therefore, Teresa can infer that, with full information, she would always regard her choosing $M_\rho$ as unjustifiable to either Adam or Bill.
5. Judgments made with full information about a person’s interests are superior to judgments made with lack of information.
6. When she can, Teresa should therefore adopt the judgments about the justifiability to each that she can infer she would have under full information.
7. Teresa can infer and adopt these fully informed judgments about justifiability. Therefore, Teresa should regard choosing $M_\rho$ as unjustifiable to either Adam or to Bill.$^1$

The critical step in this argument is the move from premise 5 to 6. To imagine a situation in which Teresa has full information about the effects of $M_\rho$ on Adam and Bill is to make her choice equivalent to a case of decision making under certainty; namely whether to give either $M_\rho$ or $M_\rho$ in Visual Impairment Case 2. Now, it is undeniable that the assessments we can make under full information about what is in Adam and Bill’s interests are “superior” in the sense of being more accurate than Teresa’s judgments in Visual Impairment Case 1, where she cannot know in advance how $M_\rho$ will affect each individual patient.

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$^1$This reconstruction of the argument was suggested to me by Alex Voorhoeve (in correspondence).
But does this also mean—as premise 6 asserts—that applying Teresa’s moral judgments about Visual Impairment Case 2 to Visual Impairment Case 1 yields a morally “superior” or more plausible assessment than ex ante Pareto? That is, does it follow from the fact that Teresa would deem it unjustifiable to give $M_p$ in a situation in which she knew for sure that this would amount to sacrificing Bill’s interest in being merely significantly visually impaired in order to allow Adam to retain perfect eyesight, that she ought also to regard $M_p$ as unjustifiable to some person even if she doesn’t know whose interest will be set back by $M_p$ and even though it gives both patients higher expected utility than $M_p$?

I believe that appealing to the Principle of Full Information to answer this question is a red herring. Let me explain why. As it is stated, the PFI is ambiguous between two possible interpretations. Fleurbey and Voorhoeve might mean

**Interpretation 1:** When one knows that in every state of the world with positive probability, and given no uncertainty about which state of the world one is in, one would rightly rank two alternatives in a particular way, then one should so rank them (no matter what state of the world one turns out to be in).

On this interpretation of the PFI, we could directly infer what Teresa ought to do in Visual Impairment Case 1 from the fact that, in either variant of Visual Impairment Case 2 (a case where there is no uncertainty about which state of the world Teresa is in) she ought to choose $M_p$.

Unfortunately, on Interpretation 1, the PFI is unsound. To see why, consider the Boat Race Case from footnote 12 of Voorhoeve and Fleurbey’s chapter (the case is derived from a similar counterexample that I proposed in an earlier draft of this response): suppose that, given full information about the outcome of the Oxford-Cambridge boat race (i.e., given no uncertainty about which state of the world she is in), Teresa prefers to go for a run rather than watching the race, because watching the race would be boring. Interpretation 1 of the PFI then implies that, even if she doesn’t know which side will win the race, Teresa ought to go for a run—since this is what she would do in every state of the world with positive probability, given no uncertainty about what state of the world she is in.

But this reasoning is obviously fallacious: the fact that Teresa doesn’t know which state of the world she is in makes a potentially decisive difference to her reasons for watching the boat race—namely, that watching the race might be exciting. Interpretation 1 of the PFI is unsound because it overlooks that certain reasons that bear on how two alternatives ought to be ranked under conditions of uncertainty may depend on an agent’s ignorance about the true state of the world. Conversely, properties (like that of being boring) that may count against an alternative in each possible state of the world, provided the agent knows which state of the world she is in, do not obtain when all the agent knows is that the state she is in is a member of some exhaustive disjunction. This is because knowledge, and properties that depend on it, do not distribute over disjunction. That is

(A) Teresa knows that $(s_1 \lor s_2)$

does not entail

(B) Teresa knows that $s_1 \lor s_2$ Teresa knows that $s_2$

Consequently, properties that obtain when (B) is the case need not obtain when only (A) is true.

Now, according to proponents of ex ante Pareto, “being justifiable to each person,” just like “being exciting” or “being boring,” is a property that may be highly sensitive to whether or not the agent knows what state of the world she is in. (The point is not, of course, that uncertainty about individual outcomes affects how Teresa should rank $M_p$ and $M_p$ in the same way as it does in Boat Race. In latter case, as Fleurbey and Voorhoeve note, uncertainty matters because it alters the value of one of the alternatives (watching the race); by contrast, proponents of ex ante Pareto merely claim that, in comparing Visual Impairment Cases 1 and 2, uncertainty may impact the correct ranking of alternatives by altering a normative fact; namely, whether not choosing $M_p$ in favor of the other medicine is justifiable to each person.)

By contrast, Interpretation 1 of the PFI implicitly assumes that uncertainty about individual outcomes is morally irrelevant. Rather than making $M_p$ justifiable to both Adam and Bill, uncertainty about individual outcomes merely masks the identity of the person to whom $M_p$ is not justifiable. This assumption not only begs the question against defenders of ex ante Pareto; it is also embedded in a general principle that, as we have seen, is demonstrably unsound.

There is a second way of reading the PFI that avoids some of the pitfalls of Interpretation 1. Fleurbey and Voorhoeve may instead intend:

**Interpretation 2:** When one knows that in every state of the world with positive probability, and given uncertainty about which state of the world one is in, one would rightly rank two alternatives in a particular way, then one should so rank them (no matter what state of the world one turns out to be in).

Interpretation 2 avoids the fallacious reasoning in Boat Race. If Teresa knows that, lacking information about the eventual outcome, she will prefer watching
the boat race to going for a run—irrespective of who eventually wins—then she ought to watch the boat race. The problem for Fleurbaey and Voorhoeve is not that Interpretation 2 is unsound. It is rather that if this is how they intend the PFI to be understood, they cannot appeal to the PFI to solve the debate between proponents and opponents of ex ante Pareto: to apply the PFI on Interpretation 2, we already need to know which of these two views is the correct one.

To see this, suppose that the ex ante Pareto is correct and, given uncertainty about outcomes, it is justifiable to each person to select $M_p$, because this gives both Adam and Bill greater expected utility than $M_e$. In that case, given uncertainty about the eventual outcome, Teresa ought to rank alternative $M_p$ above $M_e$ no matter what state of the world she turns out to be in. In other words, if ex ante Pareto is sound, selecting $M_p$ would be sanctioned by Interpretation 2 of the PFI.

To arrive at the opposite conclusion—that Teresa ought to choose $M_e$—Fleurbaey and Voorhoeve must assume that uncertainty about the eventual outcome does not make $M_p$ justifiable to every person. I will review their arguments for this assumption in a moment. But the point to note here is that, contra Fleurbaey and Voorhoeve, we cannot appeal to the PFI to show that ex ante Pareto violates a basic requirement of rationality. Rather, to apply the PFI, we must first settle the independent normative question of whether ex ante Pareto is true. The PFI is of no help in this context.

What, then, are Fleurbaey and Voorhoeve’s independent grounds for thinking that Teresa’s judgments about the justifiability of $M_p$ in Visual Impairment Case 1 should track her judgment that choosing $M_u$ over $M_e$ in Visual Impairment Case 2 would be unjustifiable to either Adam or Bill? Their chapter contains two arguments in support of this claim.

The first argument can be summarized as follows:

**Argument 1:** If Teresa knew more than the guardians (i.e., if, from her perspective, the situation was akin to Visual Impairment Case 2, whereas for the guardians it was like Visual Impairment Case 1), then Teresa shouldn’t listen to the guardians and give no weight to the fact that they would assent to $M_e$ on their charge’s behalf. Given what she knows, she should regard $M_e$ as the only option that is justifiable to both Adam and Bill. This shows that it is the judgments about justifiability made with full information (i.e., the judgments of Visual Impairment Case 2) that should guide Teresa’s actions in Visual Impairment Case 1.

I agree that what ultimately matters is what Teresa knows or can know, not what the guardians know—they are merely an illustrative device. The point, however, is that, unlike the case imagined in Argument 1, Visual Impairment Case 1 is such that Teresa cannot know who will win and who will lose, only that one of Adam and Bill will win and the other lose. It is not clear, therefore, that anything follows for Visual Impairment Case 1 from what Teresa ought to do if she herself knew how $M_p$ would end up affecting Adam and Bill. To deny this, Fleurbaey and Voorhoeve would have to assume that the difference between the case imagined in Argument 1 and Visual Impairment Case 1—namely, Teresa’s lack of information about individual outcomes in Visual Impairment Case 1—is normatively irrelevant. But to do so is simply to beg the question against proponents of ex ante Pareto.

Fleurbaey and Voorhoeve’s second argument goes like this:

**Argument 2:** It is obvious that if Teresa could easily and costlessly acquire more information—thus transforming Visual Impairment Case 1 into Visual Impairment Case 2—she ought to do so. But, if this is so, then, once again, it is the judgments about justifiability made with full information (i.e., the judgments of Visual Impairment Case 2) that should guide Teresa’s actions in Visual Impairment Case 1.

Pace Fleurbaey and Voorhoeve, I do not regard the claim that Teresa ought to acquire more information if she could easily do so as obvious (although it may still be correct). After all, neither Adam nor Bill, if they are self-interested, would want Teresa to acquire more information. (I assume that once Teresa has the information, it will be unjustifiable for her not to choose $M_p$, but ex ante, the expected utility of Teresa’s acquiring more information and then selecting $M_e$ is lower, for both Adam and Bill, than her not acquiring the information and picking $M_e$).

In any event, it is not clear what lessons we ought to draw from what Teresa should do in a case in which she could acquire more information for a case in which she cannot acquire more information. As in Argument 1 above, it would beg the question against defenders of the ex ante view to simply assume that this difference is normatively irrelevant.

I conclude that Fleurbaey and Voorhoeve lack convincing grounds for opposing ex ante Pareto and the Argument from the Single-Person Case. I do not disagree with their point that Teresa should want her action to be justifiable to Adam and Bill in terms of their true interests, rather than their merely apparent interests. But this doesn’t rule out taking a gamble in Visual Impairment Case 1. Given her limited knowledge, $M_p$ is the best way for Teresa to attempt to promote her patients’ true interests: for each patient, the expected value of $M_p$—in terms of their true interests—is greater than that of $M_e$.

The Argument from Omniscient Guardians thus fails to show that selecting $M_p$ in Visual Impairment Case 1 would be unjustifiable to either Adam or Bill.

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*I owe this point to Dan Wikler (in conversation). Note also that Argument 2 has a curiously self-undermining quality. If Fleurbaey and Voorhoeve are right and what Teresa should do, lacking access to full information, is anyway the same as what she ought to do if she had full information, then why would Teresa “obviously” need to acquire more information if she could?*
Before closing the book on this question, however, it will pay to take a brief
detour via the arguments of another philosopher to see whether a better case
can be made against using ex ante Pareto to resolve ex post tradeoffs like Visual
Impairment Case 1.

The Argument from Certain Loss

In “Contractualism and Aggregation,” Sophia Reibetanz proposes an account
of contractualist justification under conditions of uncertainty that would pro-
vide a different basis for rejecting ex ante Pareto. She writes:

As long as we know that acceptance of a principle will affect someone in a
certain way, we should assign that person a complaint that is based upon the
full magnitude of the harm or benefit, even if we cannot identify the person
in advance. It is only if we do not know whether acceptance of a principle
will affect anyone in a certain way that we should allocate each individual a
complaint based upon his expected harms and benefits under that principle.
(Reibetanz 1998, p. 304)

In Visual Impairment Case 1, of course, it is certain that someone will end up
losing the gamble offered by \( M_p \). If Reibetanz is right, therefore, whoever ends
up losing should have as great a complaint against \( M_p \) as Bill would against
\( M_u \) in Visual Impairment Case 2. We could then replace the Argument from
Omniscent Guardians with the simpler

**Argument from Certain Loss:**

1. If Teresa knows that someone will lose if she selects \( M_p \), then, if she
    chooses \( M_p \) and Adam loses, her action is unjustifiable to Adam.
2. If Teresa knows that someone will lose if she selects \( M_p \), then, if she
    chooses \( M_p \) and Bill loses, her action is unjustifiable to Bill.
3. Teresa knows that someone will lose if she selects \( M_p \).

Therefore, Teresa knows that her choice of \( M_p \) will be unjustifiable to either
Adam or Bill.

However, I have misgivings about the Argument from Certain Loss and the
view of justification that underlies it. Premises 1 and 2 imply that the rea-
son why Teresa cannot justify her action to the person who ends up being
disadvantaged is in virtue of information that she possesses about the overall
pattern of outcomes that will result from her action. But why should Adam
have a greater personal complaint against Teresa, just because,

different individuals (and states of the world)—something that contractual-
ism strictly rejects.º

Remember that, in terms of expected benefit, the gamble offered to Adam
and Bill by \( M_p \) is the same we deemed justifiable to Adam in the Single-Person
Case. The fact that, in Visual Impairment Case 1, there is bound to be a loser
changes nothing about the attractiveness of the gamble for Adam and Bill as
individuals. Contractualist justification is owed to persons, with determinate
identities and interests, not placeholders in a pattern of outcomes.

Perhaps there are other ways in which Teresa’s knowledge of the eventual
pattern of outcomes might matter? For instance, it might be claimed that if Teresa
knows for sure that someone will be disadvantaged from her
choice of \( M_p \), then selecting \( M_p \) nonetheless shows too little concern for the
eventual loser.

This complaint also misses its mark. It might be argued, with some justifica-
tion, that choosing \( M_p \) shows too little concern for avoiding that there will be a
loser. This, however, expresses a preoccupation with the overall outcome, as it
would arise from an impersonal moral principle such as telic egalitarianism or
the priority view. By contrast, what cannot be said, either by Adam or by Bill, is
that Teresa’s choice shows too little concern for avoiding that he will be a loser.

Again: Teresa takes no greater risk with the well-being of either patient than she
did in the Single-Person Case, and there Fleurbaey and Voorhoeve agreed that
taking the gamble on Adam’s behalf did not show insufficient concern for his
well-being. Unequal outcomes are not always evidence of unequal concern or
treatment, especially when they are produced by a chance causal mechanism.

**In sum:** it appears that, in Visual Impairment Case 1, despite her knowl-
dege that her choice of \( M_p \) is sure to end up disadvantaging someone, Teresa
treats both patients in just the way she ought to, were she acting on their
behalf alone. She gives them the same attractive gamble as in the Single-
Person Case, and she shows each the same concern that she had for Adam
in that case. All told, it is hard to see how the fact that Teresa can predict the
overall pattern could affect Adam’s or Bill’s grounds for reasonable rejection.
The Argument from Certain Loss fails because it conflates the moral signifi-
cance of “Teresa knows that someone will lose” with “there is someone who
Teresa knows will lose.”

**Remarks on Fairness, Lotteries, and Risk Taking**

So far, I have examined Fleurbaey and Voorhoeve’s arguments presented in the
first three sections of their chapter (2013, Chapter 8, this volume), in which

º See Scanlon (1998, chapter 5).
they sought to establish that, as far as justifiability to each person in terms of their true well-being interests is concerned, selecting the risky option \( M_p \) in Visual Impairment Case 1 is morally on a par with choosing \( M_{v} \) in Visual Impairment Case 2 (and inferior to picking \( M_{e} \) in either case).

However, in the fourth section of their chapter, Fleurbaey and Voorhoeve explore a way in which \( M_p \) and \( M_{v} \) may differ morally after all: unlike \( M_p \), which is certain to benefit Adam at the cost of certainly setting back Bill's interests, \( M_p \) gives both patients an equal chance of receiving the benefit of being fully sighted. This may make \( M_p \) *fairer* than \( M_{v} \).

The fact that \( M_p \) gives both patients an equal chance of benefiting would be especially significant, Fleurbaey and Voorhoeve maintain, if we subscribed to what David Wasserman (1996) calls a “distributive” view of equal chances. As Fleurbaey and Voorhoeve characterize this view, “a given outcome inequality among people with equally strong claims to a benefit is less unfair when each person has a chance to end up better off than when the worse off have no such chance because, in receiving this chance, each person receives an equal share of something of expected value” (Fleurbaey and Voorhoeve, p. 123). Let us call the kind of unfairness that is avoided by giving the patients equal chances of being fully sighted “procedural” unfairness. If the distributive view is sound, this would make \( M_p \) morally preferable to \( M_{v} \), at least in terms of procedural fairness.

I do not disagree with Fleurbaey and Voorhoeve that \( M_p \) may indeed be preferable to \( M_{v} \) on account of its greater procedural fairness (although I would not have treated this as a consideration that is *separate* from the question of justifiability to each person). However, Fleurbaey and Voorhoeve make two further claims that I believe deserve critical scrutiny. I will first spell out these claims and then address them in reverse order.

CLAIM 1: THE OUTCOME INEQUALITY PRODUCED BY \( M_p \) IS UNFAIR, TO SOME EXTENT

If the distributive view is correct, Fleurbaey and Voorhoeve maintain, this increases the moral distance between \( M_p \) and \( M_{v} \). How different we deem \( M_p \) and \( M_{v} \) to be from one another depends on how much the unfairness of inequality produced by \( M_p \) “is mitigated by the fact that the severely impaired person had a one in two chance of instead ending up unimpaired, which is equal to the chance that the unimpaired person had of instead ending up with the severe impairment” (Fleurbaey and Voorhoeve 2013, Chapter 8, p. 124, this volume; emphasis mine).

The fact that Fleurbaey and Voorhoeve write that the unfairness of \( M_p \) is “mitigated” by offering equal chances to Adam and Bill suggests that they think that \( M_p \) may still suffer from residual unfairness, according to the distributive view, on account of the unequal outcome it produces.\(^{10}\) I will return to this point below.

CLAIM 2: IF THE DISTRIBUTIVE VIEW OF EQUAL CHANCES IS CORRECT, THEN IT MAY BE ALL-THINGS-CONSIDERED PERMISSIBLE TO SELECT \( M_p \) OVER \( M_{v} \) AFTER ALL

Fleurbaey and Voorhoeve think that if the distributive view of fairness is correct, this doesn’t only affect how we ought to choose between \( M_p \) and \( M_{v} \). It may also impact the choice between \( M_p \) and \( M_{e} \) in Visual Impairment Case 1:

“...If Teresa should give great weight to improving the lot of those who are less well off than others and if equal chances do little to mitigate the unfairness of unequal outcomes, then she should prefer \( M_p \) over \( M_{v} \). If, by contrast, Teresa should not sacrifice much total utility for the sake of the worst off, then the fact that the equal chances offered by \( M_p \) mitigate the associated outcome-unfairness may tip the balance in its favor” (Fleurbaey and Voorhoeve 2013, Chapter 8, p. 125, this volume).

The problem with this second claim is not that I take it to be false, but that I do not see how Fleurbaey and Voorhoeve are entitled to it, given their preceding arguments.

Fleurbaey and Voorhoeve state explicitly that the Argument from Omniscient Guardians appeals only to Adam and Bill’s welfare interests and that these do not include considerations of fairness: “We will assume that these reasons of self-interest do not include an interest in being fairly treated in the distributive process. This assumption makes it possible to represent fairness considerations separately from well-being considerations” (Fleurbaey and Voorhoeve 2013, Chapter 8, p. 116, this volume). Therefore, if Teresa’s choosing \( M_p \) in Visual Impairment Case 1 is rejected by the Argument from Omniscient Guardians, this must be for reasons other than a concern with fairness.

But, in that case, even if the presence of equal chances mitigates any outcome unfairness arising in \( M_p \), how could this help make \( M_p \) all-things-considered preferable to \( M_{e} \)? Because claims of unfairness play no role in the

\(^{10}\) As Fleurbaey and Voorhoeve point out, David Wasserman himself actually rejects the distributive view. However, other philosophers, such as Gerald Lang (2005), do defend similar positions. Like Fleurbaey and Voorhoeve, Lang maintains that even perfect procedural fairness need not make an action entirely fair. Besides being unfair by giving people unequal chances of benefiting, Lang argues, an action can also be unfair in virtue of the unequal outcome it produces. He writes: “Outcomes, as well as chances, matter to fairness. To put it in another way, expected harm is not the only thing that matters, even when we are considering fairness, rather than goodness. Actual harm matters too. After all, a morally significant result of being awarded an equal chance of being saved is that you might get to be saved. So why should not the prevalence of actual harm be relevant to an assessment of fairness?” (Lang 2005, p. 336).
Argument from Omniscient Guardians, the claim that any outcome unfairness arising under \( M_p \) is mitigated by the existence of equal chances cannot reduce the force of the original objection to \( M_p \). Moreover, note that by the standard of the distributive view of fairness, \( M_p \) does at least as well as \( M_p \) because it involves neither an inequality of outcomes nor of chances. If, as Fleurbaey and Voorhoeve believe, \( M_p \) fares worse than \( M_p \) in terms of the Argument from Omniscient Guardians and, at best, does no worse in terms of unfairness, then how, by their own lights, could \( M_p \) be all-things-considered more choice-worthy than \( M_p \)?

I now return to Claim 1. Like Fleurbaey and Voorhoeve, I believe that the fact that \( M_p \) gives both patients an equal chance of receiving the benefit of being fully sighted makes it considerably fairer than \( M_p \), which creates a certain winner (Adam) and a certain loser (Bill), relative to the baseline of \( M_p \). But, unlike Fleurbaey and Voorhoeve, I am unsure to what extent the outcome inequality arising from \( M_p \) in Visual Impairment Case 1 gives anyone a residual claim of unfairness—at least not the kind that could generate a legitimate moral complaint on the part of Adam or Bill.

The distributive account of fairness, with its distinction between procedural and outcome unfairness, was put forward by Wasserman and Lang as a possible explanation for the moral importance of lotteries in the allocation of scarce, indivisible goods. These are situations in which two or more claimants are entitled to some good in equal measure but where an “equal division of the good to which they have a claim is not possible or can only be achieved with a significant loss of value” (Wasserman 1996, p. 30).

In such contexts, it is not implausible that even a procedurally fair lottery, which assigns the scarce good to one claimant but not the other, cannot remove a residue of outcome unfairness. Using a lottery to give both individuals an equal chance of receiving the good only assigns them equal chances of being treated unequally, since only one of them will receive the good, whereas the other will not. Because the good in question cannot be divided without losing most of its value, there is no way in which both claimants could have satisfied their claims to a significant degree. It is unavoidable that, through no fault of their own, one of the individuals won’t have his or her claim to the good satisfied.

The situation to which Fleurbaey and Voorhoeve attempt to apply the distributive view is arguably quite different. In Visual Impairment Case 1, in addition to \( M_p \), we have the alternative of \( M_p \), which, despite involving a small loss in total welfare, would give both Adam and Bill a significant benefit (significantly better than both a baseline of total blindness and one of severe visual impairment). Thus, there is a way in which Teresa could, to a significant extent, satisfy the claims of both Adam and Bill; namely, by choosing the riskless option.

However—and this is the crucial point—Adam and Bill, if they are self-interested, would not want Teresa to choose \( M_p \). It is in both persons’ ex ante interest that we take a gamble on their behalf by choosing \( M_p \). The question is: to what extent could either Adam or Bill complain of “outcome unfairness” when any outcome inequality under \( M_p \) results from having forgone an option, in line with their own self-interest, that would have satisfied both of their claims to a significant extent and produced no inequality? We might think that, by receiving \( M_p \), Adam and Bill “exchanged” their claim to the significant benefit that they would have gotten from \( M_p \) in return for the chance of getting an even greater good—a gamble that was in both persons’ self-interest. It is not clear that, having made this exchange, either Adam or Bill is left with any valid complaint of unfairness if \( M_p \) does not turn out in his favor.

If this argument is sound, it would have the following interesting implication: an identical set of outcomes—those produced by the gamble \( M_p \)—may count as residually unfair or not depending on whether there existed an alternative like \( M_p \) that would have given each person a significant benefit without creating outcome inequality. This would be true, despite the fact that, had \( M_p \) been available, it would have been in neither person’s self-interest that it be chosen.

**Conclusion**

This concludes my response to Fleurbaey and Voorhoeve. If I am right, their Argument from Omniscient Guardians fails: the Principle of Full Information is either unsound or else cannot settle the debate between defenders and opponents of ex ante Pareto; and Fleurbaey and Voorhoeve’s independent arguments to the effect that choosing \( M_p \) in Visual Impairment Case 1 is unjustifiable to either Adam or Bill are weak, because they risk begging the question against proponents of ex ante Pareto.

I then examined an alternative argument, the Argument from Certain Loss, adapted from the writings of Sophia Reibetzan, which suggests a different way

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*Consider the following rough, nonprobabilistic analogy: suppose that, if offered a choice between two employment contracts, one paying $50,000 per annum for 80 hours of work per week, the other paying $50,000 per annum for 40 hours of work per week, I would regard it as in my self-interest to choose the former contract. I nevertheless believe that, had the former contract been the only contract I was offered, I would have standing to complain about long working hours in a way that I wouldn’t if both contracts had been on the table.*

*Note that this result does not challenge the axiom of “independence of irrelevant alternatives” (IIA) familiar from classical decision theory. IIA dictates that, if, for a given individual, X is the most preferred option from a choice set consisting of \( \{X, Y, Z\} \), eliminating option Y from the choice set ought not to make Z preferable to X for that individual. What I am claiming is not that the presence or absence of \( M_p \) from the choice set \( \{M_p, M_p, \text{no intervention}\} \) affects the preference of \( M_p \)—assuming that this is indeed Adam and Bill’s most preferred option from the three-member set. I am merely claiming that the availability of \( M_p \) can alter a normative property of option \( M_p \), by making it the case that the outcome inequality created by \( M_p \) is not something against which either Adam or Bill have a legitimate complaint of unfairness.*
in which a contractualist may object to *ex ante* Pareto. This argument, I tried to show, is also unsuccessful. It conflates the moral significance of “Teresa knows that someone will lose” with “there is someone who Teresa knows will lose.”

Finally, I briefly considered Fleurbaey and Voorhoeve’s remarks on fairness from the fourth section of their chapter. I agreed with them that the fact that $M_p$ gives both patients an equal chance of retaining excellent vision, whereas $M_i$, does not, increases the moral distance between these two options. But, *contra* Fleurbaey and Voorhoeve, I argued that—by the lights of their own earlier argument—this fact could not make it the case that, all things considered, we ought to prefer $M_p$ to $M_i$ in Visual Impairment Case 1.

The purpose of this response was not to defend *ex ante* Pareto as a correct *all-things-considered* principle for cases like Visual Impairment Case 1. Like Fleurbaey and Voorhoeve, I am sensitive to the force of impersonal moral principles, such as telic egalitarianism or the priority view, which may militate against selecting $M_p$. Indeed, I have argued elsewhere that a contractualist focus on justifiability to each person must be balanced against such impersonal considerations. My aim in this response was the more limited one of showing that, although impersonal considerations may pull us in the opposite direction, there is no objection, as far as justifiability to each person is concerned, to choosing the risky option in Visual Impairment Case 1.

**References**


Frick, J. Contractualism and social risk: How to count the numbers without aggregating claims. (unpublished ms.).


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*See my manuscript "Contractualism and social risk: How to count the numbers without aggregating claims" (available upon request).*

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Equality of opportunity has been central to thinking about justice in health care ever since Norman Daniels started publishing his seminal work on the topic. Daniels’s is the dominant theory to date, and it famously grounds the provision of health care in John Rawls’s “fair equality of opportunity principle” (FEOP) (Daniels 1985, 2008). There are potential weaknesses, however, to the way in which equality of opportunity figures in Daniels’s account. I recount here some of these problems (this is the concern of the first section) and then propose an alternative account, namely “equality of opportunity for health.”

The second section of this chapter presents that account and discusses some initial objections to it. I then address two other potential objections to equality of opportunity for health. These objections concern (respectively) the claim that equality of opportunity can regulate only competitive goods and, as such, is not suitable for regulating health (third section), and the claim that equality of opportunity (EOp) is restricted to social rather than natural inequalities (in the fourth and fifth sections). I hope to disprove these two objections and, more generally, to present EOp for health as a plausible and attractive account of justice in health.

Let me quickly make one qualification. My proposed account of EOp for health is a narrower, as it were, account of justice in health care than Daniels. Thus, for reasons to be elaborated in the next section, it is more modest in its ambitions compared to Daniels. It is only fair to stress this now because, about some aspects of justice in health care on which Daniels’s theory fails, my proposed account is simply silent.

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