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Special Section: Open Forum

Microlevel Prioritizations and Incommensurability

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Abstract: This article addresses the prioritization questions that arise when people attempt to institutionalize reasonable ethical principles and create guidelines for microlevel decisions. I propose that this instantiates an incommensurability problem, and suggest two different kinds of practical solutions for dealing with this issue.

Keywords: prioritization; microlevel decisions; incommensurability

Which patient should get treatment when, and who should be denied treatment when resources are scarce? Which ethical grounds should be used for evaluations of these issues? In this article, I will argue that decision makers face an incommensurability problem when they attempt to institutionalize reasonable ethical principles and create guidelines for microlevel prioritization decisions. The incommensurability problem entails that it is occasionally necessarily indeterminate what we have most reason to do. This is important not only from a theoretical perspective, but also from a practical perspective, because it increases the risk for discriminatory prioritization practices. I suggest that there are two ways in which we can deal with this problem, none of which seems particularly attractive, but both of which are better than leaving the problem unaddressed.

The problem that interests me in this article appears in relation to the fact that we need to invoke a plurality of ethical values when we construe guidelines for prioritization decisions. Some of these values are, I will argue, incommensurable in the sense that it is sometimes false that some amount of goods is better, worse, or equal to some amount of another good. In the first section, I introduce the widely accepted, and indeed necessary, pluralism that is needed in order to deal with prioritization questions. For the purposes of this article, I suggest that we focus on two highly plausible, and, I hope, uncontroversial, values: *health need satisfaction* and *efficiency*. Health resources should benefit those with the most severe health needs, *and* health resources should be allocated so that they efficiently promote good health. In the second section, I argue that the values are incommensurable. In the third section, I address what it means for decisionmaking strategies to accept that values that apply to prioritization problems are incommensurable. In particular, I show that significant risks arise if we consider alternative courses of action that cannot be ranked as *equally permissible*. In the last section, I present two different kinds of practical solutions to incommensurability problems.

It might be useful to introduce a sample situation to illustrate the type of situation that I will address. Imagine the situation in an intensive care unit (ICU) over a period of 10 hours. During the 10 hours, the demand for resources from patients can exceed the resources available. Certain demands must, in that case, be prioritized, and some patients must be denied care that they need. Which are the ethical grounds for the guidelines that should guide these decisions? This is the question that I will address in what follows. I trust that it is obvious that answers to this question will be relevant also to numerous other types of microlevel situations.[1]

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Values

I will start by framing the question in terms of values. Which values should be invoked in order to justify decisions about which patient to prioritize? This framing allows priority decisions to be seen in terms that are familiar from discussions on practical rationality. Given an optimizable value, X, one can measure and compare the extent to which alternative courses of action are good in terms of how well they meet X; for example, given that "it is valuable to maximize good health," one can compare alternative courses of action in terms of how much good health they generate. Some prefer to frame ethical considerations in terms of *reasons* rather than values.[2] However, it makes no substantial difference to the argument of this article whether one speaks of reasons or values.[3] Values are preferable for the subsequent discussion because it allows for a clearer discussion of magnitudes, and for well-defined standards with which alternatives can be measured and evaluated.

Numerous values have been suggested as guides for prioritization decisions at the microlevel. For example, it has been suggested that *autonomy*, *equality*, *need*, and *efficiency* should guide such decisions.[4] Each of these suggestions actualizes specific problems concerning how to interpret them in an action-guiding manner. Furthermore, pluralistic approaches that promote a plurality of values must also say something about the internal relation of the values: which value is most important, and what should be done when they conflict?

Because I will not present an argument concerning which specific values ought to be relied on for microlevel prioritizations, but do subscribe to the idea that guidelines ought to be essentially *useable*, I will in what follows simplify matters and present two values that I hope will be acceptable to most readers: *health need satisfaction* and *efficiency*. The argument focuses on these values such as I interpret them subsequently. However, it is important to recognize that similar arguments are very easy to construe for any pair of values that one promotes as grounds for decision guides in microlevel prioritization situations. Health need satisfaction and efficiency are, therefore, in a sense examples, and can be seen as proxies that can be replaced with other values designed to govern prioritization decisions. They are, however, selected because of their general appeal, and the discussion directly addresses how widely accepted approaches to healthcare rationing function.

It seems both reasonable and defensible that the *amount of the health-related benefits* that medical care can provide should be used as a basis for prioritization decisions at the microlevel. There are numerous ways to understand health-related benefits and their value.[5] There is no place for me to discuss this in any detail in a brief article such as this. Instead, I will assume that we have a well-defined notion of what health benefits are, and that this notion allows us to, as with quality-adjusted life year (QALY) and disability-adjusted life year (DALY), aggregate and measure health benefits across and within lives. The more good health we can generate with our resources, the better. Different medical treatments are differently *efficient* in terms of the health benefits that they generate, and different medical conditions can be alleviated to different extents. Providing successful cardiopulmonary resuscitation to a person whose heart has stopped beating so that that person can live many additional years with a high level of well-being amounts to a very great health benefit to the person. Providing anesthetics to a patient with a lethal, incurable condition who will die within 6 months amounts to a relatively smaller health benefit (although it might be very valuable for other reasons).

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The amount of health-related benefits created by different alternatives ought to be taken into account in microlevel prioritization decisions.

If one accepts that the values of health benefits are cardinally comparable, one can also express the value of efficiency in such a way.[6] Let $Q1_i$ be the value of a person's health level prior to any intervention, and $Q2_i$ be the value of the person's health level after the intervention. Efficiency indicates that we ought to allocate health resources so that the total sum of $Q2_i - Q1_i$ is maximized. In order to keep the efficiency indicator simple here, I will suggest that we can think of efficiency as measurable with an indicator, E, such that the greater E is, the larger the total sum of health benefits. Prima facie, we want health resources to be allocated in the most efficient way, so that they generate the greatest health benefits possible; that is, the greater E is, the better an alternative is.

When scarce health resources are allocated at the microlevel, they ought to be allocated so they meet severity-weighted health needs.[7] A *health need* is a health shortfall that can be defined as the distance between the current health level of an individual and the desirable, *attainable* health level of the individual given technology and resource constraints.[8] For example, the health need of a patient with tonsillitis who, given specific technology and resource constraints, can be benefitted by being given a prescription for antibiotics, has a health need that amounts to the health benefits that the prescription for antibiotics generates. A patient with aggressive leukemia who, given specific technology and resource constraints, can benefit only by being prescribed painkillers that reduce suffering, has a health need that amounts to the health benefits that the prescribed painkillers generate. It is not implausible that the (unweighted) health need of the tonsillitis patient is greater than the health need of the cancer patient. The *severity* of a health need, in turn, is a health shortfall that can be defined as the distance between the current health level of an individual and the desired, *ideal* health level of the individual; that is, good health. For example, the severity of a health need of a patient with tonsillitis who is otherwise in good health amounts to the shortfall from good health that tonsillitis amounts to. The severity of a health need of a patient with aggressive leukemia amounts to the shortfall from good health that the cancer amounts to. It is obvious that the severity of the health need of the cancer patient is greater than the severity of the health need of the tonsillitis patient.

In order to measure the value of health need satisfaction, it is necessary to measure *severity-weighted* health needs. If one assumes that quality of health can be expressed on a scale from 0 to 1, one can measure the value of health need satisfaction first by measuring the health improvement of a possible intervention and, second, weight this with the health level that the patient is at. Imagine that a patient who was recently stung by a jellyfish has quality of health equaling 0.98 and an intervention can place her at quality of health 0.99, while a patient with aggressive leukemia has quality of health equaling 0.1 and an intervention can place her at quality of health 0.11. Health need satisfaction tells us to prioritize the cancer patient, because the severity of her health needs (1-0.1 = 0.9) is much greater than the severity of the health needs of the first patient (1-0.98 = 0.02) and meeting severity-weighted health needs matters. The exact nature of the severity weights (for example, how large they are, whether they grow incrementally or exponentially) has to be worked out in more detail before we can apply this indicator in practice. However, for our purposes, the idea is clear enough. I will suggest that we can think of the value of health need satisfaction as measurable with an indicator, N, that

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takes a value between 0 and 1. The higher N is, the more severity-weighted health needs have been met. Prima facie, we want health resources to be allocated so that they meet severity-weighted health needs; that is, the higher N is, the better an alternative is.

Importantly, although some components overlap, E and N take values on different scales. They can be put together in different ways. One can, for example, use N to introduce equity weights in E and get a prioritarian indicator. However, if one is interested in whether the values that E and N express are commensurable, one cannot *assume* that such combinations of E and N are justified. In what follows, I will argue that they are not.

These two values, health need satisfaction and efficiency, *occasionally* come together in a rather neat way. Occasionally the patient with the greatest severity-weighted health need is also the patient who can be most efficiently helped. One can, for example, think of cases of cardiac arrest that can be treated by simple, manual cardiopulmonary resuscitation. The severity-weighted need for treatment is overwhelmingly large, and providing treatment generates large health benefits very efficiently. Likewise, there are certain cases in which the values conflict that appear simple to resolve. A patient with overwhelmingly large severity-weighted health needs whom a medical practitioner can provide only very minor health benefits to can easily be denied care in favor of a patient who can benefit greatly.

Problems arise, however, in situations in which a medical practitioner has to decide whom to prioritize when two different patients have very different health conditions. Again, some of these cases seem easier than others. Imagine that Patient A has severity-weighted health needs of magnitude N_A for a treatment that has efficiency E_A, and that Patient B has severity-weighted health needs of magnitude N_B for a treatment that has efficiency E_B. If $N_A > N_B$ and $E_A > E_B$, then it appears obvious that Patient A should be prioritized in light of these values. Patient A has greater needs, and it is more efficient to offer her treatment. But what about situations in which health need satisfaction and efficiency of treatment are not as neatly aligned? Which guidelines should govern prioritization decisions in situations in which health need satisfaction and efficiency are misaligned? Imagine that $N_A > N_B$ and $E_A < E_B$. How should such situations be dealt with?

It is common to think of situations in which a choice needs to be made between two alternatives that have different reasons speaking in favor and/or against them as situations in which it is necessary to establish what is *all-things-considered* better. On a quotidian level, this is familiar from the cultural trope "writing pro/con lists." However, it is also an idea that is common in ethics, from W. D. Ross's discussion of prima facie and *all-things-considered* obligations to contemporary applied ethics.[9] It is, however, not obvious that this aggregative move can be made and that one can proceed as if the values involved in problematic situations can be put together so that a unique ranking of the alternatives in terms of choiceworthiness can be generated.[10] In the next section, I will argue that it is necessary to acknowledge a very specific theoretical difficulty when one attempts to put health need satisfaction and efficiency together. This difficulty has received significant attention within value theory lately, and it has been given various different names. I will subsequently refer to it as *incommensurability*.

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Incommensurability

Once one accepts pluralism and the fact that it is necessary to invoke at least two values in order to make prioritizations, one needs to recognize the prevalence of hard cases such as the one outlined previously, in which $N_A > N_B$ and $E_A < E_B$. What is to be done with these hard cases, and how should they be interpreted? In this section, I will argue that the appropriate way to understand what is happening is in terms of incommensurability. The values will be incommensurable so that they in some cases fail to fully determine what a decisionmaker ought to do.

Before proceeding, it is important to define incommensurability. "Incommensurability" is a word that has been used in various ways in the last several decades. Some have used it to describe the idea that translations between language schemes or scientific paradigms are impossible.[11] Some have equated it with incomparability.[12] Some have suggested that we should reserve the word for situations in which *cardinal* comparisons are impossible; that is, when we cannot establish the magnitude of the difference between alternatives.[13] And some have suggested that it is vagueness.[14] I will, in what follows, use the term "incommensurability" to refer to the phenomenon that for two values there exists at least one pair of instances of these values such that it is not true that one alternative is better than the other, and it is not true that they are equally good either. In other words, value X and value Y are incommensurable if there exists a value instance x and a value instance y such that it is false that $x > y$, false that $x < y$, and false that $x = y$. This allows for incommensurability to be vagueness, but also incomparability and so-called parity.[15] It should also be stressed that the fact that two values are incommensurable in this sense does not mean that value instances *never* can be ordered, or that all conflicts between the values entail indeterminacy.[16] It only means that there are *some* conflicts in which it will be indeterminate how the values relate to each other, and in which it is impossible to determine the relation according to the trichotomy <better than>, <worse than>, <equal to>.[17] I will argue that health need satisfaction and efficiency are incommensurable in this sense.

I will start with looking at a more concrete case. Consider the following clinical choice situation. The staff at an ICU faces the tragic choice between treating Anna or to Bernard. It is impossible to provide the resources needed by the patients to both patients. Anna has a very serious condition. She has been in a car accident, and she is badly hurt. Her condition is so bad so that the medical practitioner estimates that if she is not immediately attended to her right leg will be paralyzed for the rest of her life and her cognitive capacities will be significantly reduced. If Anna is prioritized, the staff at the ICU estimates that they will be able to provide the treatment needed to ensure that Anna will not be paralyzed; however, there is nothing they can do about the reduced cognitive capacities. Bernard also has a very serious condition. He was in the same accident as Anna. If his needs are not immediately attended to, the staff estimates that they will later need to amputate both his legs. If he is prioritized, he will recover completely. This constitutes a hard case that resembles the abstract possibility mentioned previously. If severity-weights are allowed to have a large enough impact when health need satisfaction is assessed, Anna's severity-weighted health needs are greater than Bernard's (Anna is much worse off than Bernard); however, it is more efficient to prioritize Bernard (according to many plausible notions of health-related benefits, Bernard will enjoy more health benefits than Anna if he is prioritized); $N_A > N_B$ and $E_A < E_B$.

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Now, consider what one would be forced to accept if health need satisfaction and efficiency were *not* incommensurable. By definition, for two values that are not incommensurable, it is true for all pairs of value instances that one alternative is better, or that they are equally good. In other words: one would need to accept that treating Anna is necessarily better than, worse than, or equally good as treating Bernard in light of health need satisfaction and efficiency. This is far from obvious. It is known that it is more efficient to treat Bernard, and that Anna has greater severity-weighted health needs; however, it is hard from these values alone to establish what is all-things-considered better to do.

To see why it is plausible to conclude that health need satisfaction and efficiency are incommensurable, consider the conflict of two alternatives that *would* be considered to be equally good if the values were not incommensurable. That such a pair of alternatives must exist follows if one accepts that a great severity-weighted health need sometimes outweighs efficiency, and that great efficiency sometimes outweighs severity-weighted health needs. In other words, if the idea that health need satisfaction and efficiency can be lexically ordered so that one always trumps the other is dismissed, and if it is accepted that health need satisfaction and efficiency trump the other interchangeably, there must (if the values are not incommensurable) be a situation in which two alternatives are equally good.

To see that health need satisfaction and efficiency *do* trump each other interchangeably, consider the following pairs:

$$\{N: .8; E: 7\} \textit{ vs. } \{N: .81; E: .1\}$$

and

$$\{N: .9; E: 4\} \textit{ vs. } \{N: .5; E: 4.0001\}$$

Were a lexical order to be embraced, one would have to say that either health need satisfaction or efficiency should be the decisive value in both these cases, whereas it seems obvious that one ought to prioritize {N: .8; E: 7} over {N: .81; E: .1} and {N: .9; E: 4} over {N: .5; E: 4.0001}. Sometimes health need satisfaction trumps efficiency, and sometimes efficiency trumps health need satisfaction. Because they are related in this complex way, there has to exist a conflict in which qualitatively different alternatives are equally good, unless one accepts incommensurability. This might be the conflict that I have described, in which an ICU unit needs to choose between Anna or Bernard; however, it might also be a different one, depending on how one believes that efficiency and health need satisfaction relate to each other.

Now, consider the patients with severity-weighted health need and efficiency $\{N_X; E_X\}$ and $\{N_Y; E_Y\}$ that would be considered equally good if incommensurability were dismissed. For the sake of the argument, I will assume that the previously described situation is this situation. Anna is extremely badly off, but she can enjoy some health-related benefits if she is prioritized. Bernard is better off, but he can enjoy more health-related benefits if he is prioritized. The ICU unit can only help one of them. It is a truly tragic choice, but does it make sense to think of the alternatives as equally tragic?

Consider a slightly modified version of this tragic choice. Imagine that the choice now involves a third patient: Charlie. Charlie's conditions are identical to Anna's in all but one respect. Charlie was stung by a wasp a couple of minutes

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before the accident, and his health is thereby slightly worse than Anna's. Charlie's severity-weighted health needs are, in other words, slightly greater than Anna's.

If, as has been assumed, it would be *equally good* to treat Anna and Bernard, then it would follow that it would be better to treat Charlie than to treat Bernard. Charlie has greater severity-weighted health needs than Anna and the health-related benefits generated are the same; therefore, it is as efficient to prioritize Charlie as it is to prioritize Anna. It is clear that, in light of health need satisfaction and efficiency, Charlie should be prioritized over Anna. If equality holds between Anna and Bernard, it follows that Charlie should also be prioritized over Bernard. This seems absurd. In this context, the diminishingly small amount of pain that Charlie experiences from the wasp cannot be seen as a decisive factor in this conflict. The conflict is a conflict between health need satisfaction and efficiency. A tiny difference in one factor does not settle this conflict in situations such as these. Therefore, one must conclude that health need satisfaction and efficiency are incommensurable.

This example is extreme. However, conflicts with similar features occur also in less extreme situations. The cost imposed on the patient who is denied care varies, but the indeterminacy of the grounds for prioritization decisions remains. The argument can, in other words, easily be extrapolated to a vast range of situations, and to a vast range of clinical settings.

That health need satisfaction and efficiency are incommensurable in the sense I introduced previously is also not surprising if one considers the conditions that have been suggested for establishing when value incommensurability occurs. (1) Health need satisfaction and efficiency express values that contribute to the overall goodness of an outcome in fundamentally different ways: health need satisfaction depends in part on how severe the ill-health of an individual is, efficiency does not. (2) Occasionally, there is no large difference in the degree to which health need satisfaction and efficiency exemplify their ways of contributing to the overall goodness of an outcome: health need satisfaction can be met to a large degree by prioritizing one patient, whereas efficiency can be met to a large degree by prioritizing a different patient. And (3) contributing to the overall goodness of an outcome in one of the ways is not categorically superior to meeting it in the other way: meeting severity-weighted health needs is not *categorically* better than efficiently generating good health.[18]

To say that health need satisfaction and efficiency are incommensurable is furthermore not to say that all conflicts between them generate indeterminate evaluations. If Anna could have been almost fully treated, the choice would have been easier. In other words, there are instances in which health need satisfaction–efficiency conflicts can be determinately solved, and there are instances in which, in light of health need satisfaction and efficiency, it is indeterminate what the better option is. In the next section, I will discuss what incommensurability means for microlevel prioritization decisions.

Dealing with Incommensurability

The incommensurability problem entails that it, occasionally, is indeterminate which prioritization decision is the better one. This poses difficult challenges for decision theory. When one alternative is all-things-considered better than the others, we can with good reason choose that alternative, or recommend others to

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pursue it. When some alternatives are equally good we can with good reason conclude that it does not matter which of them we choose. None of this is true when the comparative relation between two alternatives is indeterminate. However, we still need to make choices in these situations. How, then, should we form choices when we face indeterminacy?

In order to assess alternatives in face of indeterminacy it is important to distinguish isolated decisions from iterated decisions. In isolated instances of this kind, considering both (all) alternatives between which the comparative relation is indeterminate as equally permissible might be an attractive approach. In the situation described previously, in which an ICU unit needs to choose between treating Anna or Bernard, it might be considered equally permissible to allocate the resources to either of them, and leave it at that. The outcome is tragic, but sometimes tragic choices are part of the human condition.

However, it is a mistake to see this incommensurability problem as an isolated problem. Choosing in the face of indeterminacy is a phenomenon that medical practitioners will face frequently. They must think of these choices as iterated choices, and when they think of them in this way, it is not obvious that they should see alternatives as equally permissible.

Two serious issues for medical ethics arise when it is recognized that decisions under indeterminacy are frequent in medical practice. First, practitioners need to increase the importance they ascribe to *decision paths* that they pursue. Second, the fact that moral responsibility is placed on decisionmakers when they face incommensurability problems should be recognized.

If, as I have suggested, decisionmakers frequently make decisions in situations in which values are incommensurable, then it is very important that the importance of *decision paths* is recognized. Even if one accepts that it is permissible to select any of the alternatives between which the comparative relation is indeterminate, the series of decisions that medical practitioners select matter, and there are significant risks associated with the idea that it should simply be left to decisionmakers to, so to speak, *pick* between equally permissible alternatives. First of all, there is a significant risk that "picking a permissible alternative" will translate to "pick the alternative that is supported by one's own prejudices." If this happens once, it might be acceptable. If this happens every time a decisionmaker faces indeterminacy, society will face institutionalized discrimination. Furthermore, even if decisionmakers are free from prejudice, certain medical conditions, and, therefore, certain severity-weighted health needs–efficiency combinations, are more frequent in certain groups. There is, therefore, an overwhelming risk that an unscrutinized decision path will discriminate against certain groups, and benefit others.

That a positive comparative relation cannot be established between two value instances, x and y, does not mean that a positive comparative relation cannot be established between any of the series of decisions that a decisionmaker makes when faced with x and y. Even if the comparative relation between x and y is indeterminate, it does not follow that the comparative relation between {100x; 0y} and {50x; 50y} is indeterminate. Considering the known connection between social groups and types of medical conditions, there are good reasons to suspect that even if the comparative relation between x and y is indeterminate, one *can* determine that {100x; 0y} is worse than {50x; 50y}, because {50x; 50y} will be less discriminatory.

The second medical-ethical issue that arises in relation to the incommensurability problem concerns the moral responsibility that this places on medical practitioners.

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If univocal ethical guidelines cannot be provided, but instead this type of indeterminacy is accepted, then those who actually make the decision are placed in a situation in which they bear a significant amount of moral responsibility. This is problematic for a range of reasons. First, it is not obvious that they actually want this responsibility, and it might be wrong to provide it to them. Second, it is not clear that they can handle this responsibility. Third, it is not clear that society at large is better off by giving this responsibility to medical practitioners. Some practitioners will feel very uncomfortable bearing this responsibility. It is not obvious that appropriate training for this responsibility can be added to an already lengthy education. And finally, it is not obvious that medical practitioners are the best people to make these decisions.

Solutions

Two different types of approaches to the incommensurability problem can be outlined. Either, one might attempt to develop a clear and complete method of ordering the different values so that it always generates determinate relations between alternatives, or one might accept the problem's notoriety and leave the decisions to medical practitioners, in which case the issue and complications that surround it should be made an integral part of medical education. Neither of these approaches is very attractive; however, both seem better than leaving the problem unattended.

I will start by looking at the first of these strategies: attempting to develop a clear and complete method of ordering the different values in all instances. If values are incommensurable in the sense that I introduced previously, then these methods will be flawed. Incommensurability entails that any method that orders values and all their instances according to the trichotomy <better than>, <worse than>, <equal to> is generating invalid orders. Nevertheless, it *can* be done, and it could be argued that it is preferable to have invalid conclusions than no conclusions at all.

There are two general ways of doing this. Either, one can promote a lexical order of the values. Or, one can promote a weighing method in which the values are weighed against each other. I have previously argued that imposing lexical orders is a bad idea. It is absurd to consider health need satisfaction to be lexically superior to efficiency, because that would entail that patients who have almost no chance of being helped should be prioritized over patients who need help less, but who can certainly be helped. It is not better to prioritize {N: .99; E: .01} over {N: .9; E: 9}, and it should not be recommended to practitioners to do so. Likewise, it is absurd to hold efficiency to be lexically superior to health need satisfaction. Even if slightly more health benefits can be provided to a patient who has significantly fewer severity-weighted health needs, the individual with the greater severity-weighted health needs still ought to be prioritized when the amount of health benefits that can be provided is almost the same, but the severity-weighted health needs are significantly different. It is not acceptable to prioritize {N: 5; E: 4.0001} over {N: .9; E: 4}.

More refined ways of weighing the values can be developed. For example, one could quite straightforwardly hold that only N matters. Severity-weighted health needs, such as those described, also take into account the spirit of efficiency, which can be seen as severity-weighted efficiency. It could be argued that one just needs to figure out how large the severity weights should be, so that there is an indicator that provides determinate evaluations in all situations. However, regardless of what severity weights one uses, this approach will never be able to avoid implying

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the exact same absurd conclusions that made me argue for incommensurability previously. Whichever weighting scheme one uses, there will be a pair of very different alternatives that are considered equally good, and whichever this pair is, it will appear utterly absurd to conclude that a tiny change in one parameter (e.g., having been stung by a wasp) will imply a categorical change in the comparative relation that the alternatives have toward each other. To embrace a complete weighing method is to resign oneself to the problem and search for the least bad solution. However, if the values truly are incommensurable, then an imposed stringent weighing method will *by necessity* generate evaluations that are invalid in light of the values. By doing this, one will in effect create and embark on a decision path that is *known* to lead to bad outcomes.

Some might still argue that even though this method does entail invalid conclusions, there are pragmatic reasons to accept it. This argument is familiar from economics. A famous example is Amartya Sen, who was very aware of the shortcomings of the Human Development Index (HDI) as a measure of development, but who still saw pragmatic reasons to accept it.[19] It is doubtful, however, whether a justification similar to the one that development economists use can be found for invalid weighing methods when it comes to the prioritization issues. Some differences between the cases are obvious. In prioritization situations, decisionmakers appear to be somewhat close to making good decisions. When evaluating development, there is no indicator that comes remotely close to "getting it right," and the HDI can therefore still be considered relatively good (its main contender was the gross domestic product (GDP) which says absolutely nothing about health and education levels in a society). It is doubtful whether it is relatively better to impose a weighing method on incommensurable values than to let decisionmakers act in accordance with their prejudices. At least one can expect and hope that not all decisionmakers have the same prejudices. If an invalid decision path is imposed, the same discrimination will be institutionalized everywhere.

The other type of approach that can be taken to the incommensurability problem focuses on the decisionmakers. In the contemporary philosophical debate on the nature of practical reasons, Ruth Chang has recently suggested that when given reasons run out and no longer provide us with determinate conclusions concerning what we ought to do (i.e., when the comparative relation between alternatives is indeterminate), decisionmakers can *create* reasons.[20] In a similar way, it could be suggested that when the values that have been invoked in order to guide prioritization decisions at the microlevel fail to provide conclusive guidance, the decisionmakers have to create reasons that apply to the situation and allow for a unique conclusion concerning how resources ought to be allocated.

However, as was discussed in the previous section, decisionmakers cannot be allowed to create *any* reason in these situations. Racist reasons should not enter the decision process. Misogynist reasons should not enter the decision process. Self-interest should not enter the decision process; the fact that particular physicians judge procedure P to be *quicker* than procedure Q and conclude that they will not have to work overtime if they select to treat a patient who needs procedure P is a reason that needs to be excluded from the sphere of valid created reasons. If this path is to be pursued, it somehow also has to be complemented with some way of excluding invalid reasons from the decision process.

It might be possible to attempt to generate a list of invalid reason types, a list of grounds that should not be used when prioritization decisions are made. Such a

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list would include racist, homophobic, misogynist, and at least some types of self-interested reasons, among others. However, as these decisions are iterated, the list must also state that certain *decision paths* must be avoided. Decision paths that discriminate against certain groups should be eschewed; decision paths that for other reasons seem unfair should be avoided. It should be obvious that it will be very hard to actually produce this list. However, perhaps researchers in medical ethics should attempt to write it down and appendicize prioritization guidelines with it.

An alternative is to focus on the positive qualities of the decisionmaker. A good decisionmaker makes good decisions. This type of approach bears clear resemblance to virtue ethics, and the concept of practical wisdom, *phronesis*, that is used in the literature on this subject to refer to properties that good decisionmakers have.[21] Such approaches to incommensurability problems and to indeterminacy are not uncommon.[22] However, these theories are typically general, and rarely say much more than that it is important to do more research in the Aristotelian direction. In this context, we are talking about forming *the virtuous physician* who knows not only how to provide appropriate care, but also how to form acceptable prioritization decisions in the face of indeterminacy, and it would be necessary to know what forming the virtuous physician means more concretely.

Both of these ways of trying to deal with invalid created reasons pose a very particular difficulty that relates to the moral responsibility that decisionmakers have in the face of alternatives between which the comparative relation is indeterminate. Decisionmakers who most often deal with microlevel prioritization decisions are typically individuals from whom much is already asked. Medical practitioners must be good medical practitioners, and, therefore, they go through extensive educational programs. Furthermore, we want them to treat patients well, and have good so-called "bedside manners." To also ask them to be wise decisionmakers who make good prioritization decisions in face of indeterminacy is to ask for a lot. Either they have to be educated so that they internalize the list of unacceptable reasons and adjust their behavior accordingly, or character training needs to be part of medical education programs. However, it is not obvious that medical practitioners want to develop these skills, and it is not obvious that they are capable of developing these skills. Again, it is important to remember that they already have to study a large number of other issues that seem utterly unrelated to virtue ethics and character development.

The incommensurability problem poses significant challenges. I have argued that these challenges have to be dealt with when normative theories and guidelines for microlevel prioritization decisions are developed. Because these decisions are iterated, one cannot accept that all alternatives between which the comparative relation is indeterminate are permissible, because there is an overwhelming risk that this will generate unfair outcomes. Furthermore, indeterminacy implies that decisionmakers, in this case medical practitioners, have a special type of moral responsibility even if they are provided with ethical guidelines. I suggested that there are two ways in which this incommensurability problem can be approached. Either decision methods that do not generate indeterminacy are imposed, or an attempt is made to educate the decisionmakers so that they make wise choices. Neither of these approaches seems particularly promising. Decision methods that disregard the incommensurability problem do not solve any problem. Instead, they produce a specific injustice, whichever it might be (it will depend on the exact nature of the decision method). Approaches that stress the importance of

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having good decisionmakers in place, such as the virtuous physician, rely too heavily on the competence and willingness of physicians to develop the skills necessary, and put too much confidence in what can be included in medical education programs. However, awareness of these difficulties is the first step toward a better approach to microlevel prioritization decisions. More research is needed in order to settle the issue of how to deal with prioritization issues in light of the incommensurability problem.

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