### Against "the badness of death"

Hilary Greaves, Oxford

### 1. Introduction

Rational ethical decision-making has to be informed by an account of what makes a state of affairs, or possible world, better or worse overall. That is, we need an axiology: a betterness ordering of states of affairs. Further (for instance, for dealing with uncertainty), we often need to know, not only which states of affairs are *better* than which others, but also *by how much*. The latter, richer axiological facts are standardly represented by a *value function*: an assignment of numbers to states of affairs, in such a way that the difference between the numbers ('values') assigned to two states of affairs corresponds to the amount by which one is better than the other. Once the appropriate value function has been determined, maximisation of this value function, or (in the presence of uncertainty) maximisation of its expectation value, is the dominant decision-guiding principle in ethically informed large-scale public policy contexts.

This matter of which possible worlds are better and worse overall (and by how much) is, of course, not a primitive matter: it is determined (somehow) by what goes on inside each possible world. Some events – episodes of profound happiness or of pain and suffering, for example – uncontroversially make a world (respectively) better or worse. Other examples are more controversial, but it is at least plausible that such things as healthy or corrupted personal relationships, achievements and failures, scenes of beauty or of ugliness, and so forth, make better or worse the worlds in which they occur, if other things are equal.

Premature *deaths* are often bad in this sense: a world in which a given child dies at age 10, for example, is worse (other things being equal) than a world in which the child went on to live a full and happy life. If so, then for the purpose of healthcare prioritization, it is important to work out (1) *how* bad a premature death is, and (2) which deaths are more or less bad than which others, in terms of the contributions of those deaths to overall value.

My claim – despite this – will be that theorizing directly in terms of the badness of death can be importantly misleading. It is innocuous if done correctly, but experience indicates that once the notion of the badness of death is admitted to centre stage, it is extremely difficult to stick to the correct version. The purpose of this chapter is to highlight two ways in which (I will argue) theorizing directly in terms of the badness of death has led the corresponding theorists astray. The first mistake concerns the relationship between healthcare policy and Jeff McMahan's Time-Relative Interests (TRI) Account of the badness of death. The second concerns the value of family planning. In both cases, the mistakes in question would have been avoided if theorists had forced themselves first to write down an appropriate value function, and then focussed on the question of how to maximise value.

The structure of the chapter is as follows. §2 contains some generalities on the badness of death. §3 contains my first case study: McMahan's Time-Relative Interests Account of the badness of death. In §3.1, I set out a key case ("Emergency Room") that illustrates the initial motivation for that account. §3.2 surveys various problems for the account (noted already by McMahan and others). §3.3 suggests a diagnosis: the culprit, I suggest, is a failure to distinguish between two very different senses of "the badness of death", one but not the other of which has direct relevance to what one ought to *do* (and hence to healthcare prioritization). §4 contains my second case study, concerning family planning: here too I will argue that an excessive focus on "the badness of death" is leading theorists seriously astray, although this time in a very different way. §5 is the conclusion.

## 2. The badness of death

Given a concept of betterness/worseness, we have a derivative concept of *comparative* goodness/badness. Something is good (resp. bad) in the *comparative* sense iff it is better (resp. worse) than some relevant alternative. Some think that there are also irreducible notions of *absolute* goodness/badness: in the case of pain, for example, perhaps the fundamental thing is that pain is bad *absolutely*, and that is what *grounds* the comparative fact that pain is worse than the absence of pain.

Be this as it may, absolute badness will be irrelevant to our subsequent discussion: whatever the status of putative notions of absolute goodness/badness in general, it is clear that the badness *of death* can only be a comparative matter. Death is not like pain: since death itself is merely the cessation of life, it cannot be *absolutely* bad.<sup>1</sup> ('Death itself': as opposed to, say, the pain and/or anxiety that often accompanies death, and the grief of others that often follows it.)

Of course, it does not follow that death is not bad: comparative badness still is badness, and in general, death is comparatively bad. In general, if one's future life holds lots of promise, a state of affairs in which one dies earlier is worse for oneself<sup>2</sup>, and hence (other things being equal) worse overall, than a state of affairs in which one dies later. The earlier death prevents one from enjoying the goods that one's later life-continuation would otherwise have contained. This is the *Deprivation Account* of the badness of death; I take it to be the orthodoxy.

### 3. First case study: The Time-Relative Interests (TRI) account

<sup>&</sup>lt;sup>1</sup> Here I agree with McMahan (2002, 98). For dissent, see Burri (this volume), and arguably also Kamm (1998, esp. chapter 4). (Kamm does not explicitly use the categories of absolute/comparative badness, but her discussion of e.g. the 'insult factor', and her contrast of this with the 'deprivation factor', is naturally read as defending (inter alia) the claim that death can be absolutely as well as comparatively bad.)

<sup>&</sup>lt;sup>2</sup> Henceforth, I will use the terminology of 'prudential' badness/worseness for badness/worseness *for the person who dies*, when necessary to distinguish this from badness/worseness *overall*.

#### 3.1 The TRI account

The Deprivation Account in itself is merely qualitative: it tells us under what conditions death is (prudentially) bad, but it does not quantify *how* bad a given death is, or tell us which deaths are worse than which others. *One* natural quantitative account, extending the Deprivation Account, goes on to say that the *amount* of (comparative) prudential badness in a given premature death is the amount by which it reduces the goodness of a person's life, taken as a whole. If, say, a person dies at age 40 who would otherwise have lived to age 80, then the comparative prudential badness of this death (relative to that standard of comparison) is simply the lifetime well-being level of the 80-year life minus the lifetime well-being level of the 40-year life. This is the *Life Comparative Account*.

The Life Comparative Account seems (perhaps) very natural. Consider, though, the following case:

<u>Emergency Room:</u> Two patients present simultaneously to the emergency room, each with life-threatening injuries. Due to resource constraints, the doctor on duty is only able to treat one of the patients; whoever is treated will survive, but the patient who is not treated will die. The first patient is aged 2, the second aged 15. All other relevant things are equal.

In this case, many people have the intuition that the doctor ought to save the 15-year-old patient rather than the 2-year-old (Institute of Medicine 1986, Lewis and Charny 1989, Johannesson and Johansson 1997). Jeff McMahan reports having a further intuition about why this is so: the death of the 15-year-old, according to his intuition, is worse for the 15-year-old than the death of the 2-year-old is for the 2-year-old (McMahan 2002, 179). If so, the Life Comparative Account of the badness of death seems to be in trouble, since the 2-year-old would lose more years of life, and hence (in general) more lifetime well-being, by dying now than the 15-year-old would. Driven in part by this case, McMahan proposes an alternative quantitative account of the prudential badness of death, extending the qualitative Deprivation Account in a different way: the Time-Relative Interests (TRI) account.<sup>3</sup>

The TRI account is independently motivated, via an account of what prudentially matters in survival. Many theorists believe that the degree of rational prudential concern for a given future 'person-stage' – say, oneself at age 75 – is determined not simply by whether or not the future person-stage in question is a future stage of *oneself*, but rather by the degree to which 'prudential unity relations' obtain between onseself (now) and the future person-stage

<sup>&</sup>lt;sup>3</sup>In the terminology I use here, both the TRI Account and the Life Comparative Account are rival versions of the basic Deprivation Account. This is at odds with the terminology used by some other authors in this volume, who use the term "Deprivation Account" simply to mean what I, following McMahan, call the "Life Comparative Account". That alternative choice strikes me as unfortunate, however, since the TRI Account and the Life Comparative Account agree on one crucial thing: that the correct answer to the question of why death is bad for the person *at all*, in reply to the arguments of Epicurus and others, is in terms of deprivation (and, relatedly, comparative rather than absolute badness).

in question. There is space for some disagreement on precisely which relations are relevant to prudential unity, but common candidates are the degree of psychological continuity and/or similarity, and various sorts of causal connectedness. Suppose, for instance, that due to radical personality change and memory loss in the intervening time, the unity relations between yourself now and the future person-stage in question are just as weak as relations typically holding between yourself and other people. Then, on this view, it is prudentially irrelevant that a given far-future person-stage counts as a future stage *of you*.

Armed with this account of prudence, the point regarding the Emergency Room case is that the 2-year-old, as she is today, bears only rather weak prudential unity relations to her possible future adult self. At age 2 she has only an inchoate personality, few future-oriented plans and intentions, and her adult self (if she survives to adulthood) will not remember the present. Therefore, the thought continues, it can easily be the case that the death of the 15-year-old — who bears much stronger prudential unity relations to his possible future stages — would be worse *for him* than the death of the 2-year-old would be *for her*, despite the lower number of life-years lost.

### 3.2 Problems for the Time-Relative Interest Account

Although it seems to give a plausible verdict on the Emergency Room case, trouble lurks for the TRI Account. Consider the following case:

<u>Choice Between Deaths</u>: A doctor can either save a 2-year-old, or let him die today. If the doctor saves him now, this 2-year-old will foreseeably die when he reaches age 15; but the intervening life-years will be ones of high quality for the patient, and not burdensome to others.

Choice Between Deaths is, of course, an intrapersonal analogue of Emergency Room. But the intuitions here are different. In Choice Between Deaths, it is obvious (I take it) that the doctor ought to save the two-year-old<sup>4</sup>, and that that is better for the patient concerned. But the foreseeable result of this is that the patient in question will die a death that is (according to the TRI Account) worse, rather than less bad. Will the TRI Account, therefore, implausibly hold that it is better for the patient if we let him die today, despite his foreseeable high quality of future life?

There is a lot more to say about this case. In fact, it is as yet somewhat indeterminate what the TRI account implies for the Choice Between Deaths.<sup>5</sup> This is because there are several as yet unresolved 'choice points' in precisely how to formulate a TRI-based account. In particular: one key question, for any theory according to which the time-relative interests of

<sup>&</sup>lt;sup>4</sup> Here I agree with McMahan (2002, p.185), Norheim (this volume, p.XXX) and Campbell (this volume, p.XXX; Campbell labels the claim in question 'Saving Newborns From Death'). The account offered by Broome (this volume; section 4) takes the opposite view.

<sup>&</sup>lt;sup>5</sup> McMahan himself thinks that the TRI Account will recommend saving the 2-year-old, and agrees that this is the right answer, but notes that it 'seems paradoxical' that the theory recommends bringing about a death that is by its own lights a worse one. (McMahan 2002, 187)

person-stages determine verdicts, is: *precisely which person-stages count*? Are the relevant time-relative interests, for instance, only those of present person-stages ('presentism')? All actual person-stages ('actualism')? All person-stages who will exist regardless of how one resolves one's decision ('necessitarianism')? All person-stages who would exist given *some* resolution of one's decision ('possibilism')? Or something else again?

A presentist version of the TRI Account, in particular, would seem to yield the right answer in *Choice Between Deaths*, since the patient's *present* time-relative interests surely favour survival over death, albeit only relatively mildly. As the following case shows, however, the presentist version leads to an implausible form of time-inconsistency:

<u>Delayed Choice</u>: A baby (A) and a 30-year-old (B) are each such that, unless they are treated now, they will die in 30 years' time. The doctor only has the resources to treat one; whoever is treated will live until age 80.

If the relevant time-relative interests are all and only the present ones, then the theory *now* recommends treating B, for the familiar reason that A (now) has only weak prudential unity relations to her later possible life. However, in 30 years' time, the situation will foreseeably have changed. At that future time, A will be aged 30 and stand to lose 50 years of life (if she wasn't treated as a baby), whereas B will be aged 60 and standing to lose 20 years of life (if she wasn't treated at age 30). Therefore, the presentist TRI account will foreseeably say, at that future time, that it would have been better if A had been treated. But this sort of foreseeable regret, in the absence of any new information, is an indicator of irrationality. Thus Broome, assuming that McMahan intends a presentist form of the TRI theory, concludes that the theory is 'incoherent' (Broome 2004, 249-51; see also Broome (this volume, section 2).

In response to cases like this, McMahan agrees that presentism is implausible, and opts instead for an actualist theory (McMahan 2016). But this, as he notes, leads to further trouble, for instance in the following case:

<u>Passive Euthanasia</u>: Jenny's condition is such that she will, if she lives, experience mild pleasure for the next three days, followed by years of agony and then death. However, she will also suffer a cognitive transformation at the point at which the agony onsets, so that the prudential unity relations between herself now and the person-stages that endure the agony are extremely weak. The doctor is not permitted *actively* to kill Jenny, but has a one-off opportunity to let her die painlessly now simply by not intervening. Alternatively, he can save her now, in which case she will live to experience the later agony.

If the doctor in fact allows Jenny to die now, then the actual person-stages of Jenny are only the past and present ones. But, thanks to the cognitive transformation that would have occurred before the onset of agony, the TRIs of *those* person-stages favour survival – the next

few days are mildly positive, and the subsequent years of agony are (according to the theory we are considering) all but prudentially irrelevant to Jenny as she is now. Thus, according to the actualist TRI theory, *if the doctor actually allows Jenny to die* then this action is inferior to treating her. But this conclusion is unacceptable: clearly, the doctor ought to commit passive euthanasia in this case. (The same theory implies that if the doctor does *not* allow Jenny to die then *that* is the inferior decision, but that does not help resolve the problem already identified: passive euthanasia is the superior option in this case *regardless* of which option is actually taken.)<sup>6</sup>

## 3.3 Conceptual analysis or normative theory?

Let us take stock. The TRI account seemed (perhaps) to give an initially plausible analysis of the *Emergency Room* case, but runs into trouble when we try to make the theory more precise. Which form of trouble depends, naturally, on how the theory is made precise, but the two versions that we (following McMahan) have considered both face grave problems.

One (optimistic) response, at this point, would be to persevere: perhaps we have simply not yet hit on the right version of the theory? My own response is more pessimistic: there is a principled reason, I will suggest, why a TRI Account runs into trouble once one tries to extract verdicts on *what one ought to do* from this style of theory.

To see this, recall first that for the purposes of guiding action, what we ultimately seek from considerations of goodness and badness is a betterness ordering on whole worlds. Considerations of the goodness and badness of subworld components (such as individual deaths) can certainly be relevant, but are relevant *only when and insofar as* they affect this overall betterness ordering (or, more quantitatively, the corresponding value function). We can make more precise the type of 'badness' that is relevant:

<u>Badness in the axiological sense</u>: A is more bad than B *in the axiological sense* iff A world that contains A as component is worse[-overall] than one that contains B as component but that is equal in other relevant respects.

In introducing the TRI Account, however, McMahan is in fact quite explicit that he does *not* take the TRI Account to be an account of badness *in this sense*:

"[N]ote that my claim is not that it is illegitimate to evaluate a death in the way required by the Life Comparative Account. On the contrary, the Life Comparative Account requires us to notice the difference that a particular death makes to the amount of value that a life, and therefore the world, contains, and that may be an important consideration. My claim is only that it is not the basis of our intuitive comparative evaluations of different deaths." (McMahan 2002, 106)

<sup>&</sup>lt;sup>6</sup> This and other problems for an actualist TRI account are discussed by Holtug (2011).

According to McMahan himself, then, we are sharply to distinguish our folk ("intuitive") notion of the badness of death from the question of how bad the death is *in the axiological sense*; and the TRI account is officially proposed only as an account of the former.

If not the axiological sense, what sense of 'badness' is involved in the intuitive notion that McMahan sets out to analyse? It appears to be (what we might call) 'badness in the emotional-reaction sense'. It is, in some sense, fitting to have negative emotional reactions to certain events: a normally constituted moral agent, for example, will feel a sense of grief when witnessing or hearing about the pain or premature death of another. These fitting emotional reactions can be stronger or weaker: thus, we can define

**Badness in the emotional-reaction sense:** A is more bad than B *in the emotional-reaction sense* iff the negative emotional reaction that it is fitting to have to A is stronger than the negative emotional reaction that it is fitting to have to B.

That this is roughly the sense of badness that McMahan has in mind is suggested by the fact that he often uses the terms 'worse' and 'more tragic' (as well as 'a greater misfortune') interchangeably (see, e.g., McMahan 2002, 78, 135, 163-5, 171-2, 182, 184): to say that one event is *more tragic* than another is plausibly to say something about which emotional reactions are fitting.

It is obvious, though, that folk intuitions about degree of tragedy (and hence degrees of badness in the emotional-reaction sense) do not very closely track degrees of badness in the axiological sense. People often express a greater sense of tragedy when people die via suicide or at the hand of malicious agents - through murder, war, or terrorism, for example - than when they die as a result of natural or non-malicious causes such as malaria, heart disease, or car crashes. Similarly when people die *but very nearly didn't*: it was presumably to maximise his audiences' sense of tragedy that Shakespeare had Romeo and Juliet come *so tantalisingly close* to a life of romantic bliss, and their untimely deaths the result of such fine and improbable coincidences. But it does not follow that deaths through natural or non-malicious causes, or those that it would have been harder to avoid, are *less bad* than deaths caused by malicious agents *in the axiological sense*. It does not follow, for instance, that we should invest more resources per death averted in preventing the 'more tragic' deaths. Intuitions about tragedy, then, do not closely track considerations of badness in the axiological sense.

Be this as it may, it appears to be all but irresistible, once a notion of badness has been admitted, to slip into thinking that that notion of badness has the same sort of normative significance as badness-in-the-axiological sense. Andreas Mogensen, for example, argues that it is particularly appropriate in a public health context to rationalise the common intuitions about Emergency Room cases via the TRI Account, because (1) the TRI Account relies only on judgments about which deaths constitute greater misfortunes, (2) in a public health context consensus is important, and (3) "The idea that it is pro tanto preferable to allocate resources in such a way as to prioritise the prevention of greater individual misfortunes over lesser harms is clearly a plausible moral principle" (this volume, p.XXX). This latter moral principle certainly sounds seductive, but in fact it inherits a spurious air of plausibility from

the superficially similar principle that we should prioritise the prevention of greater bads *in* the axiological sense – that is, that we should strive to make the world as good as possible. If the notion of misfortune is instead closely linked to emotive reactions of *tragedy* and so forth, then, as above, there is in general no reason to think that 'minimise misfortune' is a sensible normative principle.<sup>7</sup>

Note well that if the TRI Account is interpreted strictly as an account of fitting emotional reactions, and not assumed to have anything directly to do with what one ought to do, then the problems for that account that we surveyed in section 3.2 largely disappear. It is entirely plausible, for instance, that in the *Choice Between Deaths* case, it is fitting to *feel a greater sense of tragedy* if the patient is saved at age 2 but perishes at 15; the potential problem for the TRI Account arose only if we tried to infer from this that one *ought not to save* the patient at age 2.8 But, of course, McMahan himself has greater ambitions for the theory: he wants it to explain, inter alia, why the doctor ought to save the 15-year-old rather than the 2-year-old in the original Emergency Room case.

I have asserted that no sensible normative principle closely links badness in the emotional-reaction sense to considerations of what one ought to do, when badness in that sense comes apart from badness in the axiological sense. McMahan might disagree: he might insist that it is appropriate to prioritise the prevention of events that would be more bad in the emotional-reaction sense, even at the cost of making the world somewhat worse overall. This, though, is a dangerous path to tread. The well-known 'identifiable victim effect' is a case in point: people have a much stronger emotional reaction when the prospective plight of a relatively concretely described, particular victim is described to them than when they are simply informed that someone or other will suffer that plight. But it would be a crazy ethics that endorses, as a result, prioritising resources so as to favour identified over unidentified victims; the inevitable result of such a policy would be that more people die. It *may* be that the doctor ought to save the 15-year-old rather than the 2-year-old in the Emergency Room case – I have said nothing against that judgment itself – but the Time-Relative-Interests Account cannot be the right explanation of why that is so (if it is so).

To sum up: There are three reasons for thinking that the TRI account of the badness of death is not and/or cannot be an account of badness in the axiological sense. First, McMahan himself says that it is not intended as such (that it is intended only as an analysis of "our

<sup>&</sup>lt;sup>7</sup> For a second example, witness McMahan's own discussion of the "Young Cancer Patient" (McMahan 2002, 110). In that discussion, McMahan takes it that a doctor might reasonably take it to be worthwhile to implement a costly medical procedure if, but only if, the death thereby averted would be "a serious misfortune", where (as above) the notion of misfortune in question is not assumed to be axiological.

<sup>8</sup>The case of *Passive Euthanasia* is more complicated, and indicates that an actualist version of TRI theory is not the right choice for an account of the badness of death in the emotional-reaction sense, any more than it is adequate as an account of the badness of death in the axiological sense. In fact, I think the best version of TRI theory for the former task is not actualist, but rather 'variantist': to ascertain how strong a sense of tragedy it is fitting to feel in response to a state of affairs X (resp. on Y), one considers the time-relative-interests that exist on X (resp. on Y). This of course raises the question of whether a variantist TRI theory would equally be adequate for the axiological notion of badness; I do not think that it would, but I lack the space here to expand on this.

<sup>&</sup>lt;sup>9</sup> For a survey of alternative candidate explanations, see Mogensen (this volume).

intuitive notion of the badness of death", while the Life Comparative Account is the correct account of "the difference that a particular death makes to the amount of value that a life, and therefore the world, contains"—i.e., of badness in the axiological sense). Second, the sorts of evidence that are adduced in defence of the TRI account (intuitions of "tragedy" and so on) clearly do not in general track purely axiological considerations. Third, when we attempt to construe the TRI Account as an account of *axiological* badness, every way we try to make the account more precise leads to implausible verdicts on at least one type of case ('Emergency Room', 'Delayed Choice' and/or 'Passive Euthanasia'). But if it is not an account of badness in the axiological sense, then it has no direct relevance to the question of what we ought to do.

# 4. The value of family planning

I turn now to a second case. It is well-known that across much of the developing world, fertility rates are high, while the availability of modern forms of contraception is patchy at best. According to one fairly recent survey (Singh et al 2010), 218 million women in the developing world currently have "unmet need for contraception" – that is to say, they report that (1) they are sexually active, (2) they wish to delay or avoid a further pregnancy, but (3) they are not currently using any modern form of contraception. In these circumstances, increased use of contraception is thought to have benefits in terms of gender equality, economic development and/or maternal and infant mortality. For these reasons, in recent years, it has increasingly been suggested that the provision of easy access to contraception in the developing world could be one of the most cost-effective ways by which philanthropists, public or private, could improve the world. This suggestion is backed up by estimates of benefit-cost ratios, in which the infant mortality-related component in particular usually plays a key role.

To calculate an actual benefit-cost ratio based on infant mortality effects, analysts of course need to estimate *how many* infant deaths would be averted by the family planning intervention in question, together with *how much value* is brought about by each infant death averted. The standard estimate in current analyses (following (Singh, et al. 2010)) is that meeting all unmet need for family planning would result in 640,000 fewer infant deaths annually. And the standard procedure for evaluating those deaths is: (i) estimate the number of years of healthy life that are lost in a premature death (say, 60 years for a death occurring at age 1, if the remaining life expectancy at age 1 in the country in question is 60 years), and then (ii) multiply this estimate by a standard figure for the "value of a QALY/DALY" (for developing countries, this figure is usually in the region of \$1,000). Since, via this method, meeting all unmet need for family planning is counted as providing benefits worth on the order of 640,000 x 60 x \$1,000 = \$38.4 billion *from infant mortality reduction alone*, it is

perhaps unsurprising that the analysts in question conclude in favour of prioritising family planning interventions.<sup>10</sup>

The above line of reasoning might superficially appear plausible, but is seriously mistaken. To see this, we must distinguish two quite different channels via which increased use of contraception could reduce the annual number of infant deaths.

The first is the *inter-birth spacing effect:* increasing the time interval between births in a given family increases the *proportion* of babies who survive to their first birthday (presumably due to e.g. decreased competition for nutrition), and therefore would reduce the number of infant deaths even if the absolute number of births were held fixed.

The second, quite different, channel might be called the *absolute numbers effect*. The simple point here is that if a given child is not born in the first place, that child cannot die. Since increased availability of contraception results in many fewer births, it is therefore a statistical certainty that it will also result in many fewer infant deaths. More precisely, the absolute numbers effect is the decrease in absolute number of child deaths that is generated by a given reduction in the number of births, *holding fixed* the *proportion* of children who die before their first birthday.

Although this is often not made clear in the literature on the value of family planning, the standard estimate of 640,000 'infant deaths averted' via family planning that lies at the basis of many evaluations of family planning turns out to be *entirely a matter of the absolute numbers effect*. In that case, though, it is absurd to evaluate this reduction in number of neonatal deaths – *qua* benefit of increased use of contraception – by attaching a 'badness' corresponding to 60 lost QALYs to each infant death. That is the correct evaluation only if one is comparing a situation (A) in which a given child dies at age 1 to an alternative situation (B) in which the same child is still born, but instead lives for 60 additional years – as in the inter-birth spacing effect. When, as here, one is instead trying to estimate how much better it is (if at all) that (C) a child *not be born in the first place* than (A) be born alive but die at age 1, there is precisely no reason to pay any attention to the value-difference between A and B, hence precisely no reason for the figure of 60 lost QALYs to appear anywhere in the calculation. The mistake embodied in the above mode of analysis is thus to use a measure of 'the badness of death' that makes sense only in the context of the inter-birth spacing effect, and to apply it unaltered in the context of the radically different absolute numbers effect.

I am not suggesting that it is a straightforward matter to carry out a correct evaluation of the benefits of increased contraceptive availability. On the contrary, since the whole point of this

<sup>&</sup>lt;sup>10</sup> Reasoning along the lines sketched can be found in: (Singh et al 2010; Kohler 2012; Walker, Tam and Frieber 2013; Population Council 2014).

type of intervention is to affect the number of people who are born, such evaluations unavoidably take us into the domain of a notoriously difficult and controversial area of moral philosophy, that of population axiology (for a recent survey, see Greaves 2016). My point is only that the calculations described above are clearly nonsensical.

How did the authors in question come to make such an apparently basic conceptual mistake? The culprit is again the habit of theorising directly in terms of a notion of the badness of death (although not, in this instance, any conflation of badness in the axiological sense with badness in the emotional-reaction sense). The notion of badness that these authors are dealing in is clearly in the first instance a comparative one: it is because in normal cases a neonatal death reduces the amount of life lived by 60 or so years, relative to what would have happened otherwise, that such a death has a *comparative* badness (relative to *this* comparison standard) of 60 or so QALYs. But once a notion of badness is admitted, it (apparently) becomes tempting to think of it in noncomparative terms, as an intrinsic feature of the state of affairs in which the 'bad' event occurs. That in turn lulls one into thinking that the same amount of 'badness' is still present, and still just as relevant, when the relevant comparison shifts to an altogether different one. If the authors in question had theorised instead in terms of a value function that simply evaluates states of affairs, and does not directly employ any notion of badness, there would have been no room for this sort of mistake. (The question of population axiology would also then have been clearly unavoidable, but since it is unavoidable in this context in any case, that is a virtue rather than a vice of the recommended approach.)

### 5. Conclusions

It is common, and tempting, to think of the value of life-saving in terms of the badness of death. While this is innocuous in principle – the value of life-saving is indeed just the badness of death, in a suitable sense of "the badness of death" – in practice it can be seriously misleading. This is because it tempts theorists both to conflate both senses of 'badness' that are axiologically relevant with those that are not, and to conflate senses of 'badness' that are essentially comparative with those that are absolute (or to make mistakes over which are the relevant comparisons). Theorising about healthcare prioritization would be far less susceptible to these mistakes if the notion of some carefully chosen value function to be maximised, rather than talk of minimising 'badness', were returned to the centre stage. In particular, we would then be far less tempted to regard the Time-Relative Interests Account of the badness of death as directly relevant to healthcare prioritization (whatever its merits as an analysis of a folk concept of the badness of death), and we would see clearly that theorising about the value of family planning depends essentially on population axiology.

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