'The only ethical argument for positive δ '?

ABSTRACT: I consider whether a positive rate of pure intergenerational time preference is justifiable in terms of agent-relative moral reasons relating to partiality between generations, an idea I call *discounting for kinship*. I respond to Parfit's objections to discounting for kinship, but then highlight a number of apparent limitations of this approach. I show that these limitations largely fall away when we reflect on social discounting in the context of decisions that concern the global community as a whole.

I.

What costs do we think the current generation should be willing to bear for the sake of benefiting those that follow? Suppose, for simplicity, that we understand costs and benefits as changes in generalized consumption, taking this to include not only goods and services exchanged in the economy, but also non-market goods such as leisure, health, and environmental services. Under what circumstances is it desirable to reduce consumption in the current generation so as to increase consumption in future?

The aim of this paper is to help answer this question by considering whether a *positive rate* of pure intergenerational time preference is justifiable. Roughly speaking, this means that we care more about the welfare of people insofar as they are nearer to us in time. Broome (1994) notes that "[t]o many philosophers, this seems a reprehensible practice." (128) In this paper, I consider whether pure time preference is nonetheless justifiable on the basis of agent-relative moral reasons pertaining to partiality between generations. I argue that it is.

The next section explains the idea of a social discount rate on investment projects funded by reductions in current consumption. I set out and explain the Ramsey formula, and then proceed to characterize the controversy surrounding its parameters. I note the existence of broad agreement among moral philosophers that the rate of pure time preference should be zero. I suggest that this broad agreement may derive from neglecting relevant agent-relative reasons.

Section 3 discusses two objections raised against appealing to agent-relative reasons to justify a standard social discount rate, both due to Parfit (1984): firstly, that this approach provides no reason for discounting grave harms; and, secondly, that it requires the rate of pure time preference to decline with time. Responding to each point in turn, I argue that Parfit fails to provide a convincing argument against pure time discounting on the basis of declining bonds of partiality.

In Section 4, I outline three further observations about the limits of agent-relative discounting. Each observation turns, in some way or other, on the fact that any bonds of partiality that diminish with time apparently link us to only a proper subset of all people. Others, to whom we have no significant ties, cannot be said to be less important to us depending on their location in time. This seems to impose important limitations on the significance of agent-relative discounting.

However, in Section 5, I suggest that these limitations may be null when we reflect on cases like global climate change, where the decisions at issue seem to concern the global community as a whole. I outline the idea of collective reasons of partiality shared by the whole of currently existing humanity - an idea I call *global collectivism* - and consider whether and to what

extent thinking in these terms allows us to circumvent the limits on agent-relative pure time discounting outlined in Section 4. I argue that they do so to a large extent.

In Section 6, I reflect on the conclusions arising from my discussion in Sections 4 and 5. I consider the possibility that there may exist other special relationships besides those involving family relatedness in light of which pure time discounting may be justified. I also consider whether discounting on the basis of declining relatedness is obligatory or merely permissible. Finally, I reflect on what such pure time discounting as is justified in terms of declining family relatedness tells us about the sacrifices to be made by the current generation on behalf of our descendants.

2.

Under what circumstances is it desirable to reduce consumption in the current generation so as to increase consumption in future? The *social discount rate* is the standard tool used by economists to answer this question. This section explains the nature of the discount rate, outlines the Ramsey formula, and describes existing debates about the rate of pure time preference in ethics and economics.

2.I

The social discount rate is the minimum (riskless) rate of return that must be earned by a project (whose funding is here assumed to be derived from reductions in current consumption) in order

for its implementation to be socially desirable (Gollier 2013). Ramsey (1928) specifies a well-known formula for determining the discount rate, so understood. The *Ramsey formula* is

$$r = \delta + \eta q$$

Here, r is the discount rate, and 'g' denotes the growth rate of consumption. The remaining parameters are so-called 'taste parameters.' We use ' η ' to denote the elasticity of the marginal utility of consumption. This is typically understood as a measure of our aversion to intertemporal consumption inequality. Lastly, the δ parameter specifies the rate of pure time preference, which will be the focus of our discussion. The rate of pure time preference is the proportional rate of decline in the utility discount factor, which is the weight we put on utility derived from consumption occurring at a given point in time.

The utility discount factor is typically normalized to 1 in the current time period. If its value declines as a function of time, we have a positive rate of pure time preference: we care more about utility derived from consumption if it occurs sooner, rather than later.

2.2

The choice of discount rate matters greatly for how we think of our obligations to posterity. Famously, the (sometimes hostile) disagreement between Nordhaus (2007, 2008) and Stern (2006, 2008) concerning the extent of emissions abatement required in the near future is

traceable principally to conflicting views about discounting (Nordhaus 2007). This disagreement is driven in large part by differences of opinion concerning the values of the two 'taste parameters.' For example, Nordhaus adopts a value for δ of 1.5%, whereas Stern rejects a positive rate of pure time preference as ethically indefensible, paring δ down to a measure of the exogenous per year risk of human extinction, which he sets at 0.1%.

Nordhaus (2007) attempts to paint Stern's commitment to intergenerational impartiality as controversial and idiosyncratic, alleging that it "stems from the British utilitarian tradition with all of the controversies and baggage that accompany that philosophical stance." (692) However, Stern's view is widely shared among moral philosophers, including those hostile to utilitarianism. Consider John Rawls, arguably the most prominent critic of utilitarianism in 20th century moral philosophy. Rawls (1999) tells us, in no uncertain terms, that "there are no grounds for discounting future well-being on the basis of pure time preference" (253)

2.3

The basic moral argument against a positive rate of pure time preference is stated clearly in a recent paper by Simon Caney (2014), who also rejects utilitarianism (see Caney 2009: 168):

A person's place in time is not, in itself, the right kind of feature of a person to affect his/her entitlements. For example, it does not make someone more or less deserving or meritorious. Similarly, it does not, in itself, make anyone's needs more or less pressing....

It is not the right kind of property to confer on people extra or reduced moral status.

(323-4)

What should we make of this line of argument?

I note the following observation. In order to be justified in caring more about some people than others, we need not regard the latter as having 'reduced moral status.' For example, I care more about my wife than any other person, but I don't regard other people as having a lower moral status than she does. I do not think there is a general requirement on moral agents to value my wife's well-being more than that of other people. Therefore, the basic moral argument against a positive rate of pure intergenerational time preference given by Caney appears to be invalid. In order to be justified in caring more about the utility of people who are nearer to us in time and less about those who are more distant, we need not regard location in time as conferring on people extra or reduced moral status.

In order to develop this point further, we can appeal to the familiar distinction between agent-neutral and agent-relative moral reasons (Nagel 1970; Parfit 1984). Caney's argument appears to presume that the only moral reasons for assigning a lower utility discount factor to SI than S2 must be agent-neutral moral reasons, such as that S2 is more deserving than SI, or is otherwise imbued with higher moral status. But some of the most important moral reasons that we have for caring more about one person than another are agent-relative reasons having to do with the particular relationships in which we stand to some people and not to others.

It may be suggested that the neglect of agent-relative reasons is justified in this context because the social welfare function from which the Ramsey formula is derived is agent-neutral, representing an impartial welfarist valuation of consumption streams (see Kolstad et al. 2014). It is indeed common to describe this social welfare function as 'utilitarian'. However, as Kelleher

(2017) argues, this is most likely an artefact of economists' decision to retain the mathematical structure of Ramsey's theory. The utilitarian moral theory that Ramsey presupposed is not necessarily retained in addition, and many economists treat the social welfare function in ways that make allowance for the existence of agent-relative reasons. For example, Dasgupta (2008) argues that our choice of the value of in assessments of climate policy should be influenced by consideration of our own potential responsibility for intertemporal consumption inequality.

In reminding ourselves of the moral significance of partiality (Keller 2013; Kolodny 2010; MacIntyre 1984; Scheffler 1997, 1999, 2004; Willliams 1982; Wolf 1992), can we construct a plausible rationale for a positive rate of pure intergenerational time preference? This idea has been raised by a number of economists (Arrow 1996; Beckerman and Hepburn 2007; Schelling 1995; Stern 2008). Stern (2008) describes it as the "only ethical argument for positive δ ... that has some traction." (15) However, the only sustained, critical discussion of it of which I am aware among moral philosophers occupies slightly less than a single page of text in Appendix F of *Reasons and Persons* (Parfit 1984: 485-6) (reproduced in Cowen and Parfit (1992) and recapitulated in Broome (1992)). As Kelleher (2017) notes, moral philosophers have tended to suppose that the justifiability of pure time discounting is to be assessed on the basis of whether there exist agent-neutral reasons for caring less about the welfare of future people, assuming mistakenly that economists' social welfare functions must be construed as agent-neutral valuations. The appeal to ties of partiality as a justification for pure time discounting has yet to be given its due.

The neglect of agent-relativity as a justification for pure time discounting among philosophers might alternatively be credited by some to the fact that Parfit refuted the idea. In his discussion of the relevance of special relationships to the pure discount rate, Broome (1992) approvingly repeats Parfit's remarks, treating these as sufficient to dismiss the idea. I maintain that they are not. In this section, I set out and respond to Parfit's objections. I begin by characterizing the particular variant of this idea that Parfit discusses, and then consider the particular respect in which Parfit finds this idea objectionable. I then consider the two objections raised in Parfit's discussion, responding to each in turn.

3.I

The particular variant of the idea that a positive rate of pure intergenerational time preference can be justified in terms of agent-relative reasons discussed by Parfit is a view I will call discounting for kinship. The basic idea is as follows. The people who are born into the next generation are our children. (Or, if we are now childless and expect to remain so, then they may be, say, our nephews and nieces.) By the lights of common sense morality, we are each permitted and/or required to be strongly partial to the interests of our children (and also, presumably, to our nephews and nieces). Plausibly, we are also permitted and/or required to be partial to our grandchildren (and also to our grandnephews and grandnieces) but to a lesser degree. For each succeeding generation, the degree of permissible and/or obligatory partiality declines as the degree of relatedness between present and future people declines. Therefore, we can permissibly weight the welfare of each succeeding generation less than that of the generation preceding it.

This view should not be understood as committing us to the idea that a merely biological relationship justifies partiality among kin. While some people may feel that the term connotes something purely genetic, we should here understand 'kinship' as having the semantic flexibility with which it is imbued by social anthropologists, capable of referring to any of a range of heterogeneous relationships that people invest with profound social significance (Holy 1996: 9-16). Thus, I will treat 'kinship' as referring to whatever relationships among those individuals whom we recognize as family members generate reasons for such individuals to be partial to one another. Different philosophers will have different views about the nature of those relationships. Some may think that biology plays an important role (e.g., Kolodny 2010; McMahan 2002: 375-77; Velleman 2005, 2008). Others will deny this (e.g., Boonin 2003: 227-34). So far as I can see, discounting for kinship does not require us to take a stand in this debate.

Obviously, it is not the mere passage of time that justifies the use of a declining utility discount factor according to this view. What matters ultimately is not distance in respect of family relatedness. However, in practice it will generally be true that the more distant some one of our descendants is from us in time, the more distantly related are we. As a heuristic, it may therefore seem sensible to represent discounting for kinship in terms of a positive rate of pure intergenerational time preference. That, at least, is the view we are asked to consider.

3.2

What are Parfit's objections to discounting for kinship? In a sense, he has none. Parfit does not object to discounting for kinship so much as using this idea to justify "employ[ing] a standard Discount Rate." (485)

Unfortunately, Parfit does not give an explicit statement of what he means by 'a standard Discount Rate'. I think it is easiest to grasp what Parfit has in mind if we turn to the objections that he lodges against using discounting for kinship to justify (what he takes to be) the business-as-usual approach. By identifying what Parfit thinks discounting for kinship cannot justify, we will see what he takes the problematic ingredients of 'a standard Discount Rate' to be.

3.3

Parfit insists that discounting for kinship cannot justify the use of a discount rate "to the infliction of grave harms." (486) His view is that when it comes to the imposition of such harms, "special relations make no moral difference." (ibid.) Therefore, even if we insist that diminishing bonds of kinship can justify some kind of diminishing concern for future persons, it cannot justify the application of a declining utility discount factor "to all kinds of effect." (ibid.)

The view expressed by Parfit here bears a notable resemblance to what Caney (2009) calls the *Scope Restricted View*. The Scope Restricted View says that violations of human rights are not to be discounted for time, although we may discount other costs and benefits. Parfit's claim that special relationships are morally irrelevant when it comes to the infliction of grave harms may be thought to imply that discounting for kinship entails something like the Scope Restricted View.

Even if we grant that the only reasons against inflicting grave harms are agent-neutral, the significance of this observation may be limited in light of the Non-Identity Problem (Parfit 1984: 351-79). When it comes to significant and far-reaching investment projects, such as those associated with the choice of climate policy or the conservation of natural resources, any choice

we make will have significant and far-reaching effects on the identities of future people. A few centuries hence, there may be no person impacted by our decision who would have existed had we chosen differently. On some accounts, that means these people cannot be harmed by our choice, since they are not made worse off than they would have been had we chosen differently (see Boonin 2014: 52-102 for a comprehensive defence of this view). Therefore, there may be no objection along the lines described by Parfit to discounting the pain and suffering experienced by these people as a result of climate change.

The suggestion here is not the absurd idea that when our actions today change the identities of future people, then the impact of our actions on the welfare levels of future people is morally indifferent. Rather, it is the far more modest point (which Parfit would surely accept) that anyone who puts special emphasis on *inflicting harm* as a morally significant category of analysis in thinking about ethics and future people will face serious challenges in applying this category to cases that invoke the Non-Identity Problem.

More importantly, on its face, special relations do make an important difference to the morality of harm. Although it may be permissible to turn the trolley from the five and onto the one in the Switch case (Foot 1967; Thomson 1985), intuitively, your reasons against doing so would be much stronger if the one on the side-track were your own child. We may well think it would be impermissible to turn the trolley in this case, as Kamm (2004: 673) does (compare Hurka 2005: 62). In Dante's Inferno, there is literally a special place in Hell for people who kill their parents, siblings, or children. The view that special relationships make no difference to the morality of imposing grave harms seems hard to believe without some kind of supporting argument, which Parfit does not supply.

In sum, the significance of the claim that all reasons to avoid inflicting grave harms are agent-neutral may be limited in light of the Non-Identity Problem, and the claim itself appears to have little plausibility. Therefore, I think we can comfortably dismiss Parfit's first objection to justifying 'a standard Discount Rate' by appeal to discounting for kinship.

3.4

The other objection noted by Parfit in arguing that discounting for kinship cannot justify the use of 'a standard Discount Rate' is that if we discount for kinship, then δ must eventually drop to or asymptotically approach zero. We must keep in mind that what is being discounted for time, on the present view, is the greater weight that attaches to the interests of certain people in virtue of their kinship to us. Because what declines with time represents a boost to the agent-relative significance of the welfare of our descendants – a diminishing 'top up' applied to the degree of concern that we owe to all people – the practice of discounting for kinship should not lead us to count the welfare of some descendant of ours for less than that of a complete stranger living now. As Parfit says: "We ought to give *some* weight to the effects of our acts on mere strangers. We ought not to give *less* weight to effects on our own descendants." (486) However, if we discount the utility of our descendants using a constant positive rate of pure time preference, we end up violating this constraint.

This suggests a second key factor that Parfit thinks of as constituting 'a standard Discount Rate': namely, the use of constant δ . This assumption is indeed standard in cost-benefit analysis. It is typically assumed that social preferences should be *dynamically consistent*: roughly speaking, this means that a plan must not be socially preferred at one point in time but socially dispreferred

at a later point, assuming no new information about the decision problem is acquired in the intervening period. A declining rate of pure time preference violates this constraint (Strotz 1955).

Parfit's second point may therefore be thought of as related to a criticism that Broome (2004, 2012, 2016) has repeatedly lodged against pure time discounting. Broome notes that we could in principle engage in *temporally neutral* pure time discounting. However, in practice, pure time discounting involves a *time relative* value function, whereby the utility discount factor assigned to a person's welfare differs depending on what time the decision maker occupies, such that earlier and later valuations of consumption streams made by one and the same social planner may conflict in ways that are foreseeable. According to Broome (2016), "This sort of incoherence in policymaking is not consistent with rational agency." (909)

However, the view that dynamic consistency is a general desideratum on social preferences is not convincing (Heal 1998; Henderson and Bateman 1995; Hepburn 2006). It seems especially implausible when a change in social preference is explained by changes in the composition of society, such that later generations have agent-relative reasons to weight the interests of people differently than earlier generations.

In general, a charge of inconsistency seems applicable only to attitudes that belong together to a suitably unified outlook. If I believe both p and $\neg p$, you may accuse me of being inconsistent. If I believe p and you believe $\neg p$, we together cannot be charged with the rational failing of inconsistency. If we think that individual persons are suitably unified over time, then dynamic consistency may represent a rational requirement on individual choice behaviour. Parfit's own views about the (dis)unity of the person entail that prudentially rational preferences may be dynamically inconsistent (Ahmed 2018). Social collectives, being successively constituted by wholly distinct people with different loyalties and different preferences, clearly do not have

the degree of unity across time needed to make a general requirement of time consistency plausible.

Assuming that we find this persuasive, Parfit's objection seems to fizzle. It may be true that the standard practice of discounting assumes constant δ . And it may be true that adopting a declining rate of pure time preference leads to dynamic inconsistency. However, time consistency is not a very plausible constraint on reasonable social preferences, for the reasons I have noted.

4.

I have defended discounting for kinship against Parfit's objections. But there are other problems in the offing. In this section, I will add to Parfit's discussion three observations of my own about the apparent limitations of discounting for kinship. These follow on naturally from our discussion in Section 3.4. Each observation turns, in its own particular way, on the fact that any bonds of partiality that diminish with time seem to link us to only a proper subset of all people, leaving us with strangers in our midst, both now and in future.

4.I

Recall the observation that the application of a declining utility discount factor to the well-being of our descendants should never lead us to value the welfare of some descendant of ours less than that of some currently existing stranger. Stated otherwise, we should never end up in a position where we value the life of one of us existing now over those of n distantly related descendants existing at time t unless we also value one of us living now more than n currently existing

strangers. On its face, this represents an important methodological constraint on our choice of the time course of δ . Because our intuitions about prioritizing among currently existing people may be clearer and more confident than our intuitions about prioritizing among people existing at different points in time, this principle may prove especially useful in guiding the selection of a reasonable time schedule for the utility discount factor. Furthermore, it seems plausible that following this prescription calls into question what might otherwise seem like relatively modest suggestions for pure intergenerational time discounting.

To see this, suppose we are wondering how much weight should be put on the utility of our descendants living 500 years from now. We might wonder whether it could be appropriate to weight their welfare as if we had applied a constant rate of pure intergenerational time preference of 1.5%, compounded annually. Of course, we know from the discussion in Section 3.4 that we should not use a constant rate of pure time preference. Nonetheless, we may wonder whether the application of the proper declining rate would lead us to value the utility of people living 500 years from now just as we would have done had we used a constant rate of pure time preference of 1.5% per annum. Given the methodological constraint just mentioned, it turns out that we are barred from doing this unless we value an increase in the utility of one of us more than an equivalent increase in the utility of 1,710 currently existing strangers. Opinions may differ, but to me this would seem to require an excessive degree of clan loyalty.

4.2

Here is the second observation to which I want to draw our attention in this section. Discounting for kinship entails that we should apply a declining utility discount factor *only* to the utility of our

own descendants. Discounting for kinship may justify us in caring more about those of our descendants who are nearer to us in time, but provides no justification for caring more about the welfare of unrelated strangers on the basis of their location in time.

Within the context of assessing optimal climate policy, this observation may prove especially significant. It is widely recognised that harms from climate change will fall principally on developing countries. These countries have the weakest obligations to pursue aggressive abatement policies, as recognised by their exemption from the group of Annex I countries bound by the Kyoto Protocol. The strongest obligations rest with developed countries. As Bjørn Lomborg (2001: 322) notes, from the perspective of developed countries, a key question for the design of optimal climate policies is whether it is more desirable to benefit future inhabitants of developing countries by mitigating greenhouse gas emissions or to fund development programs that help poor inhabitants of developing countries in the here and now (compare Schelling 1995). To drive home the weight of the choice we face, Lomborg calculates that the cost to Annex I countries of complying with the Kyoto Protocol would be enough to fund the extension of basic health, education, water and sanitation to every person in the developing world.

From the perspective of many current citizens of developed countries, both current and future inhabitants of developing countries are equally unrelated. For such people, discounting for kinship would provide no basis for the choice of a positive rate of pure intergenerational time preference when deciding between abatement and development projects. A zero rate of pure intergenerational time preference is apparently the only appropriate option for addressing one of the most important prioritization decisions faced by inhabitants of developed countries in reckoning with climate change.

Here is a third observation, which follows on naturally from the previous.

Under discounting for kinship, there exists no unitary discount rate. Precisely because reasons for discounting are presumed to be agent-relative, there will be no shared rate of pure time preference such that each currently existing individual ought to discount the welfare of future people at a certain rate per period, no matter which future people they might be. If reasons for pure intergenerational time preference are agent-relative, then we cannot ask whether and to what extent it may be justifiable to discount the interests of future people in general. We need to specify for whom it may be justifiable to discount the welfare of which people relative to what other people in light of their relative position in time.

This is not how discounting is standardly conceived by economists concerned with long-term policy setting, such as the analysis of optimal climate policy. There, it is standard to assume that there is some utility discount factor that is applied to future generations as a whole, whose rate of change is up for debate. This way of thinking seems to make little sense if we assume that reasons for pure intergenerational time preference are agent-relative, varying in character from person to person.

5.

The previous section outlined three important limitations of discounting for kinship. However, these limitations may not be all that they appear to be. Contrary to the argument made in Section 4.3, in some contexts where economists have been especially concerned about the justifiability of

pure time discounting, the question of what utility discount factor should be applied to future generations as a whole *is* appropriate under discounting for kinship. In these contexts, the assumed perspective is not that of some particular individual or nation, nor the wholly impartial point of view. It is something in-between, something like the point of view of *all of currently existing humanity*. Section 5.1 introduces this idea, which I call *global collectivism*. Section 5.2 notes a series of important questions about global collectivism that I am forced to leave unanswered. Sections 5.3 - 5.5 discuss what we should make of the three observations noted in section 4 in light of global collectivism, identifying ways in which the limitations on agent-relative pure time discounting previously noted drop away when viewed in this perspective.

5.I

I suggested above that in some contexts where economists have been especially concerned about the rate of pure time preference, the assumed perspective may be that of the world as a whole. The analysis of optimal climate policy represents a clear example of this. As Stern (2008) conceives of "the problem at hand," it concerns "social decisions by the world community now, bearing in mind consequences for future generations." (16) Climate change, he notes, "is global in its origins and in its impacts", such that an "effective response must involve international understanding and collaboration." (26) Although he chides Stern for adopting "the lofty vantage point of the world social planner," (Nordhaus 2007: 691), Nordhaus (2008) adopts a similar approach. The social welfare function adopted in the DICE model is assumed to represent the collective preferences of the world as a whole. The optimal carbon tax recommended on the basis of the model is an internationally harmonized carbon price "imposed in order to put the globe on the economically optimal path" (196).

In this debate, therefore, it is plausible to suppose that the key question under discussion is what 'the world community now' should do, as opposed to what you or I should do, or what some particular country or bloc of countries should do (compare Nussbaum 2006: 279-81; Wringe 2005, 2014). Thus, insofar as there are reasons of partiality in play, those reasons may belong not to some particular individual, nor some particular country, but to this much greater collection of agents.

The idea of reasons of partiality that are had by 'the world community now' may strike some readers as puzzling, at least insofar as we are not simply talking about reasons of partiality that each member of the collective has, considered individually. An analogy helps to clarify what I have in mind.

Suppose that Kasei is Hiroko's son and Nikki is Nadezhda's daughter. Suppose these people are otherwise strangers to one another. Imagine that Kasei and Nikki are drowning, and so is a third person, Zoya. Zoya is a stranger to all of them. We stipulate that neither Hiroko nor Nadezhda can save any person on their own, but together they can save exactly two of the people who are drowning. Then, intuitively, they together have most reason to save Kasei and Nikki.

Note, however, that Nadezhda has no reason to prefer that Kasei and Nikki are saved, as opposed to Nikki and Zoya. Kasei and Zoya are both equally strangers to Nadezhda. Similarly, Hiroko has no reason to prefer that Kasei and Nikki are saved, rather than Kasei and Zoya, since Nikki and Zoya are both equally strangers to Hiroko. Nonetheless, we think that Hiroko and Nadezhda together have most reason to save Kasei and Nikki. In this sense, there are reasons of partiality that they together have, which pick out the pair of Kasei and Nikki as uniquely important, but which no individual among them has.

In the same way, 'the world community now,' when engaged in internationally coordinated action in response to global climate change or other similar challenges, may have reasons of partiality that belong to us collectively and which pick out the next generation as uniquely important, and subsequent generations as less so. We together may have greater reason to care about the next generation than about later generations, because those who are born into the next generation are our children, whereas succeeding generations will be more and more distantly related to those of us living now.

5.2

Call this way of understanding what discounting for kinship means in the context of problems requiring internationally coordinated action *global collectivism*. I have only given us a sketch of the idea. Many important questions remain unanswered. Here are a few that stand out as especially significant.

Firstly, who exactly are the members of the 'the world community now'? Are we to think of this as the collection of all individual human beings currently living? Or should it instead be understood as a collection of states? In the case of climate change, should it perhaps be thought of as the collection of all signatories of the United Nations Framework Convention on Climate Change (UNFCCC)? Could we equally well be speaking about either sort of collection?

Secondly, in asserting the existence of reasons that are not the reasons of some particular individual, but of a group of individuals, should we think of global collectivism as committing us to a view on which 'the world community now' is a collective agent who has these reasons? This

might seem implausible if 'the world community now' is supposed to represent the collection of all currently existing individual human beings. This collection seems to represent a so-called 'unstructured group,' lacking any shared procedure for collective decision-making, without which collective agency seems impossible (Collins 2019; French 1979, 1984, 1995; List and Pettit 2011: 158-159; Sheehy 2006). The attribution of collective agency seems more plausible if 'the world community now' is taken in some context to refer to the UNFCCC signatories, since the High-Level Segment of the annual Conference of Parties seems to represent a procedure for collective decision-making of the kind we expect group agents to have.

Perhaps group agency is a red herring. Should we instead suppose that when we speak of reasons that are not the reasons of some particular individual, but of 'the world community now', this involves so-called *non-distributive plural predication* (McKay 2007; Oliver and Smiley 2013)? In other words, should we think of ourselves as predicating something of a group of people that cannot be correctly predicated of any one among them, nor of a fusion of the group members, as when I say that the students in my class are twelve in number or that they are born in many different countries (compare Pinkert 2014: 189-90)?

Thirdly, what exactly is the right account of the 'bottom-up' relationship between the reasons that individual people have to be especially concerned about the welfare of their children and the reasons that we together have to be especially concerned about the welfare of the next generation? It may be tempting to think that the reasons of partiality held by individual people just end up being transferred to the groups to which they belong. However, taken literally, this will not do. If Hiroko and John are the parents of Kasei, then this is a reason for each of them to be especially concerned about Kasei's welfare. But it will not be true of any group of which Hiroko and John are members that the group is among Kasei's parents. Therefore, the reason that Hiroko

and John have to be especially concerned about Kasei's welfare is not one that any group to which they belong can have (compare Dietz 2016: 973).

Finally, what 'top-down' relationships, if any, exist between the reasons of 'the world community now' and the reasons of its individual members? If the group as a whole has most reason to implement a certain plan of action, does it follow that its individual members therefore have most reason to do their part in realizing the plan? Are there particular conditions that must be met for this kind of 'top-down' grounding of normative reasons to occur? If so, what are they? Is it possible that the reasons of the group might be entirely epiphenomenal with respect to what its individual members ought to do? (See Dietz 2016: 968-82 for discussion of these issues.)

I raise these questions merely in order to set them aside. These are topics for future research. In the remainder of this paper, I want to make the case for adding them to our to-do list. In order to do so, I hope to show that we ought to take global collectivism seriously, and, to that end, I want us to consider what global collectivism tells us about the nature and significance of the three observations about the limitations of discounting for kinship noted in Section 4. Relying on the partial grasp that we currently have on the core idea, we are nonetheless able to see that we should think of these limitations as being generally much less serious - or even non-existent - when viewed in light of global collectivism.

5.3

I will work in reverse order, beginning with the third observation discussed in Section 4: namely, that if reasons for pure intergenerational time preference are agent-relative, then we cannot ask whether and to what extent it may be justifiable to discount the interests of future people *in*

general, contrary to the practice of economists concerned with long-term policy setting like Nordhaus and Stern.

Global collectivism allows us to straightforwardly dismiss this concern. Under global collectivism, the reasons for caring differentially about the welfare of some people as opposed to others in virtue of their location in time are not understood as the reasons of some particular currently existing person or country. They are the reasons of the 'world community now'. More exactly, they are the reasons of the current generation, considered as a whole, to care about the welfare of each future generation, considered as a whole. Viewed from this perspective, there is nothing problematic about the standard assumption that there is a shared utility discount factor that may be applied to each future generation considered *en masse*, albeit one whose value declines as a function of time.

5.4

Continuing our way back through Section 4, let's now consider the observation discussed in Section 4.2: namely, that discounting for kinship may justify us in caring more about those of our descendants who are nearer to us in time, but provides no justification for caring more about the welfare of unrelated strangers on the basis of their location in time. This limitation was suggested as being especially significant in the context of climate policy assessment.

However, this concern also seems inapplicable in the context of global collectivism. From the perspective of 'the world community now,' there are no strangers, present or future. Speaking for the current generation as a whole, there are no human beings who will come to exist but who will not be our descendants. Therefore, under global collectivism, we need not worry that there

exist certain groups of people relative to which we have no justification for caring more about those of its members who are nearer to us in time. The practice of pure time discounting will not be tightly circumscribed in the way suggested in Section 4.2.

5.5

Last but not least, consider the observation discussed in Section 4.1. There it was noted that if the application of a declining utility discount factor to the well-being of our descendants is justified in terms of discounting for kinship, this should never leave us in a position where we value the utility of one of us existing now over those of n distantly related descendants existing at time t unless we also value one of us existing now more than n currently existing strangers. It was suggested that this methodological prescription would call into question what might otherwise seem to be relatively modest suggestions for selecting a time schedule of utility discount factors.

When discounting for kinship is understood according to global collectivism, this prescription loses its bite. From the perspective of the world community as a whole, we may think, there are no currently existing strangers. There is no one now living who is not a member of this community. Therefore, the constraint noted in Section 4.1 can be trivially satisfied by any schedule of discount factors.

However, we should not read too much into this, as Alex Dietz pointed out to me. Even if there are no currently existing people who are not members of 'the world community now,' there presumably could have been. Exactly what this would mean will depend on exactly how we understand 'the world community now'. But however exactly we interpret this idea, it seems possible that there could now have existed human beings who aren't among its members: people

whom we discovered living on other planets, say. Moreover, the fact that there are no such people is presumably morally arbitrary and should not change how steeply we are permitted to discount the welfare of future people.

We might, for example, re-interpret our original constraint so that it now constrains how we trade off our own welfare against the welfare of our descendants in terms of how we would trade off our own welfare against the welfare of currently existing human beings whom we discovered living on other planets. Since it is morally arbitrary that no such people exist, this constraint should not be any easier to satisfy than a methodological constraint of the kind discussed in Section 4.1. We should therefore conclude that global collectivism does not, after all, permit the choice of a more extreme schedule of discount factors.

5.6

This section has explained the idea of global collectivism as a framework for thinking about discounting for kinship in the context of assessing optimal climate policy or other similar problems requiring internationally coordinated action, such as the regulation of dangerous biotechnologies or risks from artificial intelligence. I have noted a number of important questions about how best to interpret global collectivism that are as yet unanswered. Even without resolving these questions, I was able to show that global collectivism should lead us to think of the limitations on discounting for kinship highlighted in Section 4 as fading into insignificance in two out of three cases. Thinking of discounting for kinship in light of global collectivism allows us to answer the concerns noted in Section 4.2 and 4.3 in ways both straightforward and convincing. The story is more complicated for the observation made in Section 4.1. It may be true that there is

no one now living who falls outside the scope of 'the world community now,' and so we can trivially satisfy the constraint that we should never end up in a position where we value the utility of one of us existing now over those of n distantly related descendants existing at time t unless we also value one of us existing now more than n currently existing strangers. However, since the absence of currently existing strangers is morally arbitrary, we are able to re-state the aforementioned methodological constraint in terms of counterfactual currently existing strangers so as to derive a no less restrictive constraint on the scheduling of discount factors.

6.

I will use the last section of this paper to reflect on the broader significance of the conclusions reached in Sections 4 and 5. In Section 6.1, I consider whether there exist other special relationships, besides kinship, in light of which pure time discounting may be justified. In Section 6.2, I consider whether discounting on the basis of declining relatedness should be thought of as obligatory or as merely permissible. Finally, in Section 6.3, I reflect on what discounting for kinship viewed through the lens of global collectivism tells us about the sacrifices to be made by the current generation on behalf of our descendants. In particular, I argue that discounting for kinship does not (of itself) ward off concerns about excessive sacrifice.

6.I

I initially described my aim as being to explore whether there exist agent-relative reasons for caring more about future generations insofar as they are nearer to us in time. However, my discussion throughout the majority of this paper has focused more narrowly on a particular class of agent-relative reasons: namely, those associated with kinship. Is this narrower focus appropriate? Are there no other agent-relative reasons that could justify a positive rate of pure time preference?

Perhaps there are. Kolodny (2010) notes that we generally think of common personal history or shared situation as giving rise to bonds of partiality, even among people who have never interacted face-to-face. For example, we expect solidarity among people who have a shared experience of some particular form of adversity, such as soldiers who fought in the same war. Perhaps simply experiencing a common historical moment represents a similar kind of shared experience, at least within a historical moment as interconnected and globalized as our own. We are the people who have lived in the shadow of the Great Recession and the Trump presidency, the Syrian Civil War and the Brexit fiasco. Subsequent generations will live in a historical moment that is somewhat like ours, but future people will eventually look back on this past moment as a foreign country.

The idea that sharing a historical moment represents a kind of shared experience giving rise to reasons of partiality based on solidarity has some degree of plausibility. However, any reasons of partiality to which this relationship gives rise must surely be very weak. As relationships go, this seems very tenuous. If the rate of pure intergenerational time preference has any genuine importance in determining socially desirable investment criteria, it cannot represent the declining significance of so unimportant a bond between generations. For this reason, I doubt that this idea is worth exploring in greater depth.

I conjecture that similar remarks will apply to any other class of agent-relative reasons that might be used to justify a positive rate of pure intergenerational time preference, besides

those associated with kinship. The distinguishing feature of kinship as a source of agent-relative reasons is that these reasons are viewed as extraordinarily weighty by the lights of common-sense morality. For this reason, I submit that discounting for kinship is the proper object of focus insofar as we are interested in the ethics of agent-relative pure time discounting.

6.2

In this section, I consider whether discounting for kinship should be considered obligatory or merely permissible. It is useful to divide this question into two parts. Firstly, is it obligatory or merely permissible for members of the current generation to be less concerned about the welfare of our descendants than about our own welfare? Secondly, is it obligatory or merely permissible for members of the current generation to be less concerned about the welfare of those of our descendants who are nearer to us in time than of those who are farther from us?

It is useful to divide the question up into these two parts because of the moral significance we invest in the self-other asymmetry (Slote 1984). Thus, the answer to the first question is reasonably straightforward: it is merely permissible for members of the current generation to be less concerned about the welfare of their descendants than about their own welfare, at least according to the common-sense moral beliefs about permissible partiality on which we are drawing. We think of each person as justified in caring especially about their own interests, but not as required to do so. We believe in *agent-sacrificing permissions*: a person can permissibly incur a cost to her own interests for the sake of securing a smaller benefit to some other person (Slote 1985). While certain forms of self-abnegation may strike us as morally criticisable (Hampton 1993, 1997), we are least likely to think of agent-sacrificing behaviour as criticisable in the context of kin relationships. There is nothing especially remarkable about someone who exhibits greater concern for the welfare of their child than for their own welfare. Therefore, we should be perfectly

happy with the idea that although members of the current generation can permissibly weight their own welfare more than the welfare of their descendants, they are not required to do so and can permissibly weight their own welfare less. Partiality to self is permissive.

The question becomes more interesting when we consider how members of the current generation are to weight the utility of their future descendants with respect to one another. In general, do we think that people are required to be partial to the interests of those to whom they are more closely related or that they are merely permitted? The answer, I suspect, is complex. Although this no doubt over-simplifies the matter, I suggest that people are generally required to be partial to the interests of those to whom they are more closely related, but the degree of partiality that is specifically morally required is significantly less than the degree of partiality that we ordinarily think of as permitted.

By way of illustration, consider someone who could purchase an expensive present for their child or who could instead purchase a cheap present with which their child would be reasonably happy, allowing the parent to donate the difference to some suitably cost-effective NGO that helps children living in extreme poverty in developing countries. If we temporarily set aside doubts about common-sense judgments of this kind raised by Singer (1973) and Unger (1991), we presumably think that either choice is permissible. That is, this person is permitted but not required to weight their own child's welfare at hundreds or thousands times the welfare of unrelated people in developing countries, so as to justify spending money on luxuries for their own child while others go without basic necessities. While this person might be criticisable if they attached no greater weight at all to their own child's life and well-being, this kind of extreme weighting is merely permissible, and not required.

If this is correct, then we should expect that the extent to which our distant descendants' utility is justifiably discounted relative to our children and grandchildren can be decomposed into two factors, one representing the degree of partiality toward our close family members that is merely permissible, the other representing the degree of partiality toward our close family members that is obligatory. The first factor will be the greater. Some degree of discounting may be required under discounting for kinship, but much less than is merely permitted.

6.3

A standard argument for pure time discounting offered by economists is what Parfit (1984) calls the Argument from Excessive Sacrifice. If we adopt a zero rate of pure time preference, optimal investment criteria seem to mandate that the current generation make extraordinary sacrifices for the sake of those that follow. As Parfit notes, "any small increase in benefits that extends far into the future might demand any amount of sacrifices in the present, because in time the benefits would outweigh the cost." (484) Thus, given an infinite time-horizon and the assumption that, Arrow (1996) infers that the optimal savings rate without a positive rate of pure time preference is at least 2/3rds, adding: "I find this to be an incredible and unacceptable strain on the present generation." (7)

By contrast, suppose we adopt the standard practice of using a utility discount factor whose value decays exponentially. In that case, streams of benefits become relatively insignificant once they extend sufficiently far into the future and thus play a negligible role in determining optimal investment decisions. A constant value for δ of 1.5% compounded annually yields a discount factor of around 1/1,710 after five hundred years, falling to around 1/3,000,000

in 1,000 years' time. This allows the welfare of present people to loom larger, thereby significantly limiting the sacrifices present people may be asked to make for the sake of future people.

Does the view about pure intergenerational time preference developed in this paper serve to allay concerns about excessive sacrifice? No. Discounting for kinship requires δ to decline at too fast a rate for the utility of far-future people to be discounted into insignificance in the way characteristic of exponential discounting. Under discounting for kinship, given the constraint discussed in Section 4.1 (and again in 5.5) and abstracting from the contribution of the exogenous risk of extinction to δ , it seems plausible that the utility discount factor should *never* drop below 1/500. Concern for the utility of suitably large far-future populations could therefore end up dominating optimal investment decisions when pure time preference is justified by reference to discounting for kinship (compare Rendall 2019: 447-8).

However, we should not infer automatically that discounting for kinship entails that present people ought to make extreme sacrifices of the kind that so alarmed Arrow. There are other ways to avoid that conclusion besides exponential pure time discounting, such as by using a more concave utility function or adopting certain assumptions about the rate of technical progress (Greaves 2017: 407-8). Nonetheless, discounting for kinship suggests we should be open to the possibility that very great sacrifices may, after all, be required by present people on behalf of the untold many who are yet to be born.

Most moral philosophers think a positive rate of pure intergenerational time preference is unjustifiable. I have argued that it may be justified in terms of agent-relative reasons related to diminishing partiality between ever more distantly related generations, a view I call discounting for kinship. I have paid particular attention to what it means to discount the utility of future people in this way when our relationship to future people is viewed through the lens of (what I call) global collectivism. This seems to represent the appropriate framework for thinking about the ethics of discounting in cases requiring internationally coordinated action, such as the questions concerning optimal climate policy over which Nordhaus and Stern have clashed. All in all, the joint package of discounting for kinship and global collectivism strikes me as morally acceptable. It does not yield the extreme results characteristic of exponential discounting. For the same reason, it does not avoid the conclusion that present people should bear very great costs for the sake of benefiting those that follow. There may be other ways to avoid that conclusion, but it may also be one that we should just accept.

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