

DIVINE CREATIVE FREEDOM

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1. PROBLEMS

God is omnibenevolent. This very plausibly implies the No Inferior Choice principle:

(NIC) Necessarily, when choosing between options that include A and B , if A is a better than B , then God does not choose B .

Denying NIC would seem to require one either to suppose that God may be ignorant of which option is better, contrary to omniscience, or to suppose that God can choose against better reasons, which would conflict with perfect divine rationality.

Unfortunately, NIC has problematic consequences. Suppose that choosing to actualize w_A is better than choosing to actualize w_B if and only if w_A is better than w_B . Rowe (2004) has argued that

(NOMAX) For any world that God could actualize, there is a better world that he could actualize.

Then it follows that if God exists, he cannot choose which world to actualize, since whichever world he chose to actualize, he would have been choosing between options that included a better option than the one he chose, contrary to NIC.

Nor are matters much improved if there there is a world that is better for God to actualize than all others. For then God cannot choose other than that best world, contrary to the very plausible Divine Creative Freedom principle:

(DCF) Necessarily, God creatively chooses what to actualize among a great variety of significantly different types of worlds

and the No Necessary Creation principle:

(NNC) It was possible for God to choose not to actualize any contingent beings.

Now, DCF is a very plausible thesis about divine creation. It is worth distinguishing it from omnipotence. If, *per impossibile*, only three worlds were metaphysically possible, God might well count as omnipotent if he could actualize each of them, since then he could do all that can be done, but DCF would not hold. DCF could then be seen as giving some concrete content to omnipotence. NNC, on the other hand, seems to be an important

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part of monotheistic insistence on God's transcendent independence from creation. It is also a dogma of the Catholic Church, as taught by the First Vatican Council.

A distinctive solution to such difficulties is provided by Donald Turner (1994 and 2003) and, more recently, Klaas Kraay (2010). Turner and Kraay embrace the view that there is a best of all possible worlds and God creates it. This saves NIC. They will have to bite the bullet on NNC. But they can alleviate the problems of affirming modal fatalism and denying DCF by holding that the best world contains all possible universes that are worthy of creation (say, the ones that on balance have more good than evil). This is the theistic multiverse view. Modal fatalism can be avoided by accepting David Lewis's semantics for modal language: a proposition is necessary provided it is true at every universe and possible provided it is true at some universe. Moreover, the implausibility of denying DCF can be moderated by insisting that while God is not free to choose *between* significantly different types of worlds, he does create an infinitude of significantly different universes.

These moves are in the end unsatisfactory. While Lewisian modal realism faces many problems that we need not rehearse here (see Pruss 2011 for a survey of arguments), we will here give two objections specific to the theistic version which raises a problem that Lewis does not face: one God who knows every truth and creates every contingent being in every world.

Let @ be the actual universe. It either is or is not true at @ that God created all worthy universes. If it is not true at @ that God created all worthy universes, then it is not true that God created all worthy universes, and the theory is false, since what is true at @ and what is true are (contingently) co-extensive. If it is true at @ that God created all worthy universes, then it is true at @ that all worthy universes exist. But if y is an part of x , and x exists, then y exists. But some worthy universe has a unicorn as a part of it and we have assumed that all worthy universes exist. So it is true at @ that a universe that has a unicorn as a part of it exists, and hence it is true at @ that a unicorn exists. But what is true at @ is true. And so a unicorn exists. Likewise for dragons, dog-headed humanoids and other mythological creatures. This is absurd.

The second objection is similar. Necessarily, if p is true, God believes p . So, if p is possible, possibly God believes p . Thus, possibly, God believes that there are no horses, since the proposition that there are no horses is possibly true. So according to the theistic variant of Lewis's modal realism there is a universe, say u_1 , at which God believes that there are no horses. Now God either actually has this belief or not. If he actually has this belief, then he actually has conflicting beliefs, since he also actually believes that there are horses since it is true that there are horses and God believes all truths. But God does not have conflicting beliefs. So we have to say that while at u_1 God believes there are no horses, actually God instead believes there are horses. Thus, what propositions God believes differs between universes. But how could that make any sense? How could divine beliefs be localized

to different locations? Granted, perhaps our beliefs can be localized to brain hemispheres so that at a location in my left hemisphere I believe p and at another I don't. If that can be made sense of, then one might try to give a sense to the locution "believes p at x ". But God's beliefs surely do not have any such localization, since wherever God is present, he is *wholly* present. He is not a material being to have partial presence of the sort that might allow for a spatial distribution of our beliefs.

Instead of defending a theistic multiverse as a way of responding the problems posed by NIC, I shall instead offer a Thomistic account that plausibly preserves NIC, DCF, NNC and the denial of modal fatalism by defending the thesis that incommensurability between possible worlds is much more prevalent than it seems, and hence there is an infinity of worlds satisfying the property that none of them is inferior to any other world. This account will, moreover, allow for reasons-based explanation of God's free creative choice, and perhaps in a certain sense even *contrastive* explanation.

2. VALUE COMPARISONS AND INCOMMENSURABILITY

I will use the term "options" to indicate the alternatives that choices range over. These might be taken to be possible action types by a given agent. Consider what one might call "fundamental evaluative respects" under which options are to be evaluated, where we have reduced rational considerations as far as it is possible to more fundamental respects without losing something of rational significance in the decision. Thus, the hedonistic rational egoist may think that there is only one such irreducible evaluative respect, namely the expected degree of pleasure minus pain—all that is rationally relevant to the evaluation of options is encapsulated in that their respective expected degrees of pleasure minus pain. A more sophisticated rational egoist may, however, think that there are different kinds of pleasure whose degrees cannot be put on a common and more fundamental hedonic scale, and she will think that these different kinds of pleasure constitute distinct fundamental evaluative respects. Likewise, the typical Aristotelian will hold that there is a list of evaluative respects reducible corresponding to the fundamental goods available to a human being, such as friendship, knowledge or appreciation of beauty, and that these cannot be reduced to a single and more fundamental eudaimonistic scale. (For an excellent account of prominent theories of wellbeing, including the Aristotelian one, see Lauinger 2012.)

I will say that option A *dominates* option B provided that in every fundamental evaluative respect A is at least as good as B and in some fundamental evaluative respect A is better than B . An illustration is the standard Thomistic answer to why the blessed in heaven cannot sin: because their beatific vision is seen to dominate all alternatives, it is not possible for the agent to choose an alternative. I will not need the general Thomistic thesis that it is not possible for an agent to choose a dominated option, but I will

grant the special case where the agent is God, which special case is implied by NIC.

There is a second ordering on options, which we express by saying that an option *A* is *on balance better* than an option *B*. Plausibly, if *A* dominates *B*, then *A* is on balance better than *B*. But the converse is false. It is on balance better for me to encourage a student who is having difficulties than to ridicule his work before the whole class. But encouraging does not dominate ridiculing, since there is a respect—viz., public entertainment—in which ridiculing is superior. The virtuous teacher will not act on this morally insignificant consideration, but it has to be acknowledged that it favors ridiculing.

Thomists think that imperfect beings are capable of choosing an option that is on balance worse—i.e., to sin—as long as the worse option is not dominated. Our distinction between the on-balance comparison and domination parallels Aquinas' distinction between the noncomparative concepts of what is good simply and what is good in some respect (Aquinas, 1920, I-II, 34, 2). It is a major problem in Natural Law ethics to explain how an option can be on balance better than an option that it does not dominate (see, e.g., McInerny 2006). I will offer two kinds of stories, and insist on neither. Other stories can be plugged into my general account.

The simplest story is the deontic restriction account that option *A* is on balance better than option *B* provided that either (a) *A* dominates *B* or (b) *A* is permissible and *B* is forbidden to the agent in question.

A more elaborate story is that a virtuous being will necessarily have certain kinds of preferences between respects in which the value of options may be compared. Thus, it is virtuous for a human to count major differences in the suffering of others as more significant than minor differences in one's own level of boredom. This could be elaborated, e.g., in either a natural law direction, on which what counts as virtue for a given being is determined by the kind of being this is, or a divine command direction, on which God calls certain kinds of beings, or certain individuals, to have virtues that embody preferences between value-comparison respects. One could even combine the natural law and divine command accounts, allowing that the nature of a being determines some preferences between respects, and a divine vocation super-adds further preferences. Thus, it could be that a particular individual is called by God to live a particularly gentle kind of life, counting differences in the peacefulness of outcomes as overriding certain other salient considerations.

Furthermore, one can plausibly add the deontic element from the deontic restriction account to the virtue account: virtue requires that differences in permissibility override other differences. In this way, what kinds of preferences are virtuous for the kind of being the agent is, or even for the individual agent given her personal vocation, will define an ordering between pairs of options that are not related by domination, and this ordering defines what it is for an option to be on balance better. Working out the details of either

story would be a difficult task, and is not the task of this paper. It is worth noting, however, at this point that options are always indexed to an agent, so what option is on balance better may well depend on an agent—either on the kind of being the agent is or even on the particular individual.

We can now say that two options are *weakly incommensurable* provided that (a) they are not equally valuable in all respects, and (b) neither dominates the other. The two options are *strongly incommensurable* provided that (a) they are not equally valuable in all respects, and (b') neither is on balance better than the other.

Aquinas then can be read as holding that when two options present themselves to us as weakly incommensurable, each can be chosen. That is why we can act wrongly: the wrong action is on balance worse than the right one, but there is some respect in which the wrong action is more valuable—ridiculing a student in front of a class is on balance worse than correcting the student in private, though it is more entertaining.

NIC did not take into account the distinction between domination and on-balance-better. I will disambiguate NIC by insisting that not only God cannot choose a dominated option, but he also cannot choose an on-balance-worse option. This makes NIC stronger, thereby making harder the task of this paper to resolve the tension between NIC, on the one hand, and DCF and NNC, on the other.

Given two options A and B , there are four mutually exclusive and exhaustive possibilities: (a) A is on balance better than B , (b) B is on balance better than A , (c) A and B are strongly incommensurable and (d) A and B are equally valuable in all respects.

The last possibility is a Buridan's ass situation, and then one cannot have a reason for choosing one option over the other. I will bracket the question whether it is possible to choose at all in such a situation, but one thing is clear: it is not possible to have a *reason* to choose one over the other. The widespread incommensurability I will argue for makes it plausible that such cases may not often occur, if ever, in the case of divine choices, but the question does not need to be resolved here. In this paper, my focus will be on the non-Buridianian options available to God. A mere freedom to choose between insignificantly different Buridianian possibilities is not much of a freedom.

3. FOUR SOURCES OF INCOMMENSURABILITY

Where might incommensurability come from? We can identify at least four important sources that offer many scenarios of weak incommensurability and some of strong incommensurability.

3.1. Different kinds of values. Suppose Sally has the talent to become an excellent mathematician or an excellent nurse. Mathematical activity would have the value of furthering our understanding of mathematical truth and bringing to light hidden beauty. If mathematical truth is grounded in

the mind of God, as Augustine thought, her work has a deep theological component to it: the beauty she brings to light is the beauty of God. On the other hand, her nursing activity would relieve human suffering, bringing God's love to the sick, and by showing deep respect for the frail would glorify God in human beings who are his image. Moreover, each activity would potentially have further instrumental value, which I will bracket for simplicity. There is some commonality in the goods directly brought about by the two activities when they are done excellently: they glorify God. But they do so differently. Mathematical activity as such does not do much to relieve suffering, and so in respect of relieving suffering the nursing is superior. But mathematical activity does better in bringing to light a great number of securely known truths in their beautiful logical interconnection. Sally's two options are weakly incommensurable.

Whether Sally's options are strongly incommensurable is another question. It could be that Sally has a personal calling to be a mathematician, or that human beings as kind are required to prefer the relief of suffering to the furthering of understanding, and in these cases one option might be on balance better than the other.

It is an interesting question whether there is *always* weak incommensurability between different kinds of values. Suppose that Sally's contributions as a nurse would be genuine but very small—she is a dutiful but not very sensitive or gentle person, and she is not as good at following medical directions as many others—but her contributions as a mathematician would be great. It becomes less clear whether there is still weak incommensurability between the options. I am inclined to think there is. If Sally still chose to opt for nursing because of the (very small) net amount of relief of suffering, her action would still be rationally intelligible: we could say she chose nursing over mathematics because of the value of relieving suffering. And where there is rational intelligibility in a choice of A over B , A is seen by the agent as better in some respect than B . It would not be in the same way rationally intelligible if Sally somehow chose to become a worse nurse over a better one, when all other benefits and costs of the actions were the same.

But while there is weak incommensurability in the choice between being a mediocre nurse whose net contribution to relief of suffering is very small and being an excellent mathematician, it is plausible that the second option is on balance better. A virtuous agent would choose a great amount of the values promoted by mathematical activity over a minuscule amount of the values promoted by nursing, or a great amount of the values promoted by nursing over a small amount of the values of mathematics.

On the other hand, it is plausible that, unless Sally has a personal vocation to one or the other or humans in general are called to prefer one value over the other, if the levels of expected excellence at the two scenarios are roughly comparable, there will be strong incommensurability. And if humans in general are called to prefer one value over the other, one will still have

strong incommensurability when choosing a sufficiently smaller degree or quantity of the to-be-preferred value over a larger degree or quantity of the other value.

In general, then, differences in kinds of value lead to weak incommensurability, and often strong incommensurability as well.

3.2. Differences between possessors. A second source of weak incommensurability is differences between possessors of goods. As a warm-up, start with differences based on relationship. Thus, we can imagine the person who saves her life instead of a friend's because it's *her own* life, and the person who offers herself up to save her friend's life because it's *her friend's* life. Both choices are rationally intelligible. Saving one's own life furthers the good of oneself being alive, and saving one's friend's life furthers the good of one's friend being alive. (It is an interesting question whether the second is typically on balance better. If so, then we may not be able to identify the on-balance-better with the obligatory, because saving one's friend's life over one's own is typically supererogatory.) Thus, differences as to the possessor of the good based on morally significant differences in relationship to the agent can give rise to weak incommensurability.

But the same is true even in cases where the relationships to the potential possessors of goods are the same. This may seem counterintuitive. It seems that the question whether to save the life of one person or another, where one knows nothing relevantly different about either, is a Buridanian situation rather than a case of incommensurability. Nonetheless, I shall argue it is a case of incommensurability.

Start with a tragic Sophie's choice case. The parent must choose which of two children to rescue from drowning, where it is not possible to rescue both. Let us suppose the parent's relationship to the children is exactly alike¹ and that the parent is going to act out of love. Nonetheless, the parent's relation to each child is non-generic. The father loves Sam and the father loves Matt. Even if he loves them equally, the two loves are different. The father does not simply have a generic love of his children. He has a personal love of each one. If he saves Sam, he does not save Sam due to some generic love for his children *qua* his children. He saves Sam *because of his love for Sam*. And this gives an explanation for his choice, and the explanation might even in some sense be contrastive. For the attitude out of which he saves Sam would not apply in the same way² to his saving Matt. If he were to have saved Matt, the explanation would have been different, namely it would have involved his love for Matt.

¹In a way, the case becomes even more tragic when the parent can see differences, as focusing on certain kinds of differences can lead to greater feelings of guilt later; but the case of interest for this paper is one where the relationship is alike.

²Though one can imagine cases where one might save one child at least partially out of love for the other.

The value that the father pursues in saving Sam would be specifically the value of *Sam's* life, rather than a generic value of the life *of a human being* or even *of one of his children*. There is a respect in which saving Sam is better than saving Matt: it is better for Sam in respect of *Sam's* life. There is a respect in which saving Matt would be better than saving Sam: it would be better for Matt in respect of *Matt's* life. And what is true here is true even apart from close parental ties. Each person's life bears a value that no other person's life carries: it is *that* unrepeatable, non-fungible person's life. And what is true *par excellence* of the value of a person's life here is also true of other goods that the person may have. Thus, there is a weak incommensurability when one is comparing options involving goods given to different people, even when the goods are of the same kind and magnitude.

Moreover, this kind of weak incommensurability often gives rise to strong incommensurability. Indeed, in Sophie's choice scenarios, neither option is on balance better. The parent would not have done on balance less well or better to have saved the other child.

Now consider a rather different argument for incommensurability based on individual identity. Imagine a world w_1 which contains a countable infinity of individuals x_1, x_2, \dots (if one objects to the possibility of a simultaneous actual infinity, these individuals could come into existence in successive years, so that x_i comes into existence in year i , and in any given year at most finitely many individuals exist). Of these, the odd-numbered ones are in pain and the even-numbered ones are just fine. The degrees and kinds of pain are all the same. You also exist in this world and are outside this sequence. There are no other morally relevant distinctions between these individuals or between their relationships to you. And there are no other created persons.

Now imagine a world w_2 where you and x_1, x_2, \dots all exist, but there is one relevant difference: x_1 is just fine. It certainly seems that w_2 is preferable to w_1 as regards the good of x_1, x_2, \dots . If the choice whether w_1 or w_2 is actual depended on what you did, there would be a genuine value in your ensuring that w_2 is what is actual. In respect of the misery of people in the sequence, w_2 is better.

Next take a world w_3 where in addition to you we have a sequence of people y_1, y_2, \dots who are arranged in w_3 pretty much as x_1, x_2, \dots were in w_2 , but who are a completely different group of people, with no overlap with x_1, x_2, \dots . (The y_i might also have some morally insignificant qualitative differences with the x_i if qualitative differences are necessary to ensure their numerical non-identity.) In particular, y_3, y_5, y_7, \dots are miserable while y_1 as well as y_2, y_4, y_6, \dots are fine.

Suppose it is up to you which of these three worlds is actual. Let us simplify by considering only the respect of pain. Then w_2 uncontroversially presents a better option than w_1 —in respect of pain we have domination, since everybody in pain in w_2 is in the same degree of pain in w_1 , but x_1 is in pain in w_1 but not in w_2 . Next, assuming that the identity of individuals doesn't matter for value comparisons, w_3 presents an equally good option

as w_2 , since we can match up the individuals one-by-one between these two worlds with the same pain or lack of pain state. But w_3 also presents an equally good option as w_1 under this assumption, since instead of matching up y_i with x_i , as we did when we said that w_2 and w_3 present equally good options, we could instead match up y_1 with x_2 , y_{2i} with x_{2i} for $i \geq 1$, and y_{2i+1} with x_{2i-1} for $i \geq 1$. This gives a one-to-one correspondence between the individuals in w_3 and those in w_1 in such a way that the corresponding individuals are just as well or badly off in terms of pain. If the identity of individuals doesn't matter for value comparisons, then w_3 will present an equally good option as w_2 . But presenting an equally good option is a symmetric and transitive relation. Since w_1 and w_3 stand in this relation and so do w_2 and w_3 , it follows that w_1 and w_2 stand in it as well.

But it is false that w_1 and w_2 present equally good options. In w_2 , the pain of one of the individuals in w_1 is relieved. One has good moral reason, grounded in the good of x_1 , to make w_2 rather than w_1 actual.

This means that we must either deny that (a) w_1 and w_3 present equally good options or that (b) w_2 and w_3 present equally good options. But (a) and (b) are exactly on par. So if we must deny one of them, we must deny both of them. And that is what we should do. But it is also clear that neither of w_1 and w_3 is on balance better than the other, and neither of w_2 and w_3 is on balance better than the other.

Thus if we have a world with infinitely many people, we can affect the value of the world by switching to another world that is morally just like it in all relevant respects except for the identities of the infinitely many people. In such a case if one is choosing which of the two worlds to actualize, neither world presents an option that dominates the other option, and we have just seen that the two options are not equally good, so it follows that the two options are weakly incommensurable. And unless one has a particular calling to benefit a particular set of persons, there will be strong incommensurability as well.

But the best explanation of why switching infinitely many bearers of goods and bads presents an incommensurable option is that switching bearers of goods and bads *in general* leads to incommensurability, even if the numbers involved are finite. In other words, individuals are axiologically non-fungible. Moreover, as before, we get strong incommensurability in a number of cases.

3.3. Pursuing good versus avoiding bad. Within the same kind of value, say aesthetic value or maybe more specifically woodwind classical musical aesthetic value, we can compare options by seeing which one has *more of a good*, but we can also compare options by seeing which one has *less of a bad*. Thomas Aquinas says that the first principle of the natural law is that "good is to be done and pursued, and evil is to be avoided" (Aquinas 1920, I-II, 94, 2). It can be important to distinguish these two categories. Suppose my choice is between no musical enjoyment and a classical woodwind concert by inconsistent musicians such that euphonious performances

will be interspersed with cacophonious ones, and I must either attend the whole concert or none of it. Then the no-music option is superior in respect of avoidance of the bad of cacophony, while the concert option is superior in respect of enjoyment of the good of euphony. There is weak incommensurability here. It may be that when the ratio of euphony to cacophony is roughly balanced, there is strong incommensurability, but when the ratio becomes more one-sided, one option comes to be on balance better.

We thus get weak incommensurability, and sometimes strong incommensurability, in a choice between a good and the avoidance of a bad.

3.4. Aggregating utilities between persons. Standard utilitarianism aggregates utilities between persons by adding them. Thus, if person x_i flourishes with a utility U_i , the overall utility of the situation, which the utilitarian holds is to be maximized, is $\sum_i U_i$. But obviously that is not the only way to aggregate utilities. One might, instead adopt a maximin approach, as in Rawls (1999), and thus for purposes of decision-theoretic maximize one would aggregate utilities with $\min_i U_i$. Or one might follow Nietzsche in focusing on the value of the highest human achievements and try to maximize the maximum, aggregating with the rule $\max_i U_i$. Or one might opt for one of the L^p norm: optimize $(\sum_i U_i^p)^{1/p}$ for a fixed real number p , with a convention on the utilities that makes them all positive. This last rule yields Rawlsian maximin in the limit as p goes to 0, Nietzschean maximax as p goes to infinity, and standard utilitarianism for $p = 1$. Perhaps $p = 1/2$ provides a nice balance between maximin and summing. Or one might simply average the utilities (for a discussion of the last, see Parfit 1984).

Most if not all of these rules seems to capture *an* aspect of aggregate flourishing. There is a distinctive value in the sum total of individual utilities being high, but there is also a distinctive value in the least-well-off doing well, a distinctive value in the average level of flourishing being high, and it seems good that at least some excel at a very high level of human achievement. These different ways of aggregating flourishing thus give rise to weakly incommensurable options in political decisions and, plausibly, at least sometimes to strongly incommensurable ones.

3.5. Risk and chance. Some people will accept a gamble where they have a 55% chance of winning a hundred dollars and a 45% chance of losing a hundred dollars. But others are more risk averse and will refuse this gamble. The gamble has the value of a 55% chance of winning and it has a positive expected utility. Each of these two facts indicates a way in which accepting the gamble is genuinely valuable. But refusing the gamble has the value of being certain of no loss, and this is a genuine value of refusing the gamble. Neither the risk-acceptant nor the risk-averse person is being rationally unintelligible. Different possible reasonable patterns of acceptance of risk thus give rise to at least weakly incommensurable options, and often strongly incommensurable ones.

Moreover, two chances of events can themselves be incommensurable, in the sense that neither chance is greater than the other but they are not equal either. For suppose that a point is going to be uniformly randomly chosen on the surface S of a sphere and for each subset A of S we ask about the chance that the point will be in A . Say that two subsets A and B of S are rotationally equivalent provided that there is a rotation r about the center of S such that $rA = \{rz : z \in A\} = B$. The Hausdorff Paradox (Hausdorff 1914) famously says that given the Axiom of Choice, the surface of the sphere can be subdivided into four disjoint subsets A , B , C and D such that

- (a) D is countable
- (b) A , B , C and $B \cup C$ are all rotationally equivalent.

Now, for any two disjoint rotationally equivalent sets X and Y , the chance of our random point being in X is neither less nor greater than the chance of its being in Y . Thus, either the two chances are incommensurable or they are equal. They cannot be equal in general. For if they are always equal, then the chance of the point being in A will both equal the chance of its being in $B \cup C$ and the chance of its being in B . But then, by transitivity of equality, the chance of the point being in $B \cup C$ will equal the chance of its being in B . But clearly the chance of the point being in $B \cup C$ is bigger than the chance of its being in B , since C is rotationally equivalent to B and disjoint from it, and the chance of landing in C is non-negligible since almost all of the sphere—namely $S - D$ —can be covered by three copies of C . So, there are rotationally equivalent sets such that the chances of the point landing in them are incommensurable.

The Hausdorff example is recondite and it is difficult to see how it would come up in practice very much. But it is plausible that if libertarianism is the correct theory of freedom, then the relation between the chance of a completely rational agent doing A and the chance of her doing alternative B will be the same as the relation between the strength of her reasons for A and the strength of her reasons for B . If the reasons, however, are incommensurable in strength (because of one of the other sources of incommensurability), then the chances of the agent doing A and of her doing B will be incommensurable. And it is plausible that an incompletely rational agent could have incommensurable chances of actions as well.

But if there are incommensurable chances, there can be incommensurable options. For if events E and F have incommensurable chances, then the option of getting a good G on E and the option of getting the same good G on F will be incommensurable.

4. INCOMMENSURABILITY AND THE EXPLANATION OF ACTIONS

An attractive feature of an account on which all choices are between at least weakly incommensurable options is that we can give explanations of

actions, creaturely and divine. And one might even further speculate that there is even a sense in which these explanations are contrastive.

Suppose that a rational agent x is choosing between incommensurable (or at least incommensurable by the agent's lights) options A and B . From the agent's point of view, there will be reasons that favor A over B and reasons that favor B over A . Moreover, in the case of akratic agents like us, presumably it is one thing simply to *take* something to be a reason for an action and another to be *impressed* by it in a way that actually motivates one in favor of the action. The belief that something gives one a reason can be at the back of one's mind—perhaps culpably pushed there—without its being explanatorily relevant to one's decision. When the agent makes a rational decision between A and B , the agent will be impressed by at least one reason that favors A over B and at least one reason that favors B over A .

Let R_1, R_2, \dots be a finite or infinite list of all the respects in which A is superior to B from x 's point of view that x was impressed by, and let S_1, S_2, \dots be a finite or infinite list of all the respects in which B is superior to A from x 's point of view that x was impressed by. Suppose that x was impressed by R_i in favor of A over B to degree d_i , and was impressed by S_i in favor of B over A to degree e_i . If in fact x chose A over B , then we can explain why x chose A as follows:

(EXPL_A) x chose freely between A and B and x was impressed by R_1, R_2, \dots in favor of A over B at least to degrees d_1, d_2, \dots and x was impressed by S_1, S_2, \dots in favor of B over A at most to degrees e_1, e_2, \dots

Of course, being impressed by the reasons in the indicated way does not entail, or even nomically entail (p nomically entails q if and only if $p \& L$ entails q , where L is the laws), that one will choose A . But explanations do not require entailment (Salmon 1990; Pruss 2006).

There are two ways of defending the explanatory character of EXPL_A. First, one might argue that because being impressed by a reason is something that genuinely motivates one, EXPL_A is a causal explanation of action in terms of motives, whether one takes this causation to be efficient (e.g., Davidson 1963) or final (cf. the accounts of action in terms of final explanation in Wilson 1989 and Ginet 1990). And then one might accept the Humean principle that correct statements of causes always constitute explanations.

Second, the proposed explanation plausibly gives rise to a kind of stochastic explanation given that a rational agent is likely to choose an option in proportion to the degree to which she is impressed by the reasons in favor of it. Stochastic explanations not only do require entailment of the explanandum by the explanans, but do not even require the explanandum to have conditional probability greater than 1/2 on the explanans. The standard case in the philosophy of science literature is that having syphilis explains

one's getting paresis, even though only a minority of syphilis patients get to the paresis stage (Scriven 1959; see discussion in Salmon 1990, Section 2.3). One cannot even maintain without careful qualification that the explanans raises the probability of the explanandum (Suppes 1970), but in the case at hand we do have probability raising in normal cases³: that the agent was *at least* impressed to such-and-such degrees by the reasons in favor of *A* and *at most* impressed to such-and-such degrees by the reasons against *A* will normal make her choosing *A* more likely.

The above extends to the case of three or more options. Now consider the case of God's initial creative decision. Then for each world that God can actualize, there will be a collection of ways in which that world is more valuable than other worlds. It could perhaps be that some way of being more valuable is rationally excluded from divine consideration, for instance because God promised not to consider it (cf. the discussion in Pruss, 2013). But God will necessarily be impressed by each unexcluded way of being more valuable precisely to the extent that it is an unexcluded way of being more valuable. Suppose for simplicity that there are only two worlds, w_A and w_B , and that *A* and *B* are the options of actualizing these, respectively. Then the divine analogues to EXPL_A and EXPL_B will explain his decision—an analogue to EXPL_A will explain the decision to actualize w_A , if that's the decision God takes, and if God makes the other decision, that will be explained by an analogue to EXPL_B . Moreover, the analogues to EXPL_A and EXPL_B will themselves be explained by necessary truths about the values of the options together with necessary truths about reason-exclusion and the fact that this is God's first choice so God did not acquire any contingent exclusionary reasons (say, by way of promise).

EXPL_A need not provide a contrastive explanation of why x chose *A* rather than *B* in order for EXPL_A to provide an explanation of why x chose *A*. But if one so desires, one might even very tentatively and controversially speculate that EXPL_A counts as a *contrastive* explanation of why x chose *A* rather than choosing *B*. For the following seems to provide a plausible sufficient condition for a contrastive explanation:

(CONT) p contrastively explains q rather than r if (a) p explains q , (b) p explains $\sim r$, and (c) were r to have held, then q wouldn't have explained r .

And the explanation in EXPL_A satisfies this condition with respect to x choosing *A* rather than choosing *B*. For the explanation in EXPL_A explains why x chose *A* as well as why x did not choose *B*, namely that x was impressed at least to such-and-such a degree by the reasons in favor of *A* and at most to such-and-such a degree by the reasons in favor of *B*. Moreover,

³An example of an abnormal case might be where there is a Frankfurt-style counterfactual intervener standing in the background who would have strongly influenced, or even forced, the agent in favor of the action were the agent to have had weaker reasons in favor of it.

if x had instead chosen B , this would not have been the explanation at all. Instead the explanation would have been:

(EXPL_B) x chose freely between A and B and x was impressed by R_1, R_2, \dots in favor of A over B *at most* to degrees d_1, d_2, \dots and x was impressed by S_1, S_2, \dots in favor of B over A *at least* to degrees e_1, e_2, \dots

One might of course want to generate a regress by asking: Why is it that, say, EXPL_A is what explains the resultant action rather than EXPL_B? But the answer is that it is EXPL_A that explains that. It is because x was at least thus-and-so impressed by the considerations favoring A and no more than thus-and-so impressed by the considerations favoring B that EXPL_A carried the day. (And had x chosen B , then EXPL_B would have explained why EXPL_B carried the day.) We can, of course, ask again: Why is it that EXPL_A explains why EXPL_A carried the day? But again the answer will be EXPL_A. And so on. There is an infinity of questions, but no infinite regress since all the questions have the same answer.

5. GOD, CREATION AND INCOMMENSURABILITY

5.1. From weak to strong incommensurability. Assume that God exists. It is plausible to say that God owes us nothing and it is clear that he has no vocation from a higher authority. While God may set moral constraints on his actions by making promises or entering into covenants, in the decision of which world to create, he has not yet done that. Consequently, many of the deontic constraints on our actions do not apply to God.

If we take the simple deontic constraint view of the difference between being on balance better and dominating, intuitively it should be less common for God than for us that two options are weakly but not strongly incommensurable, since on the deontic constraint view the only way two options that are weakly incommensurable could fail to be incommensurable is if one but not the other is permissible.

If we take the virtue view, then a similar claim seems plausible. If our virtue view is based on divine commands, this is clear. The aretaic requirements as to what preferences God should have over and beyond the domination relations will all depend on what God chooses to command himself, and so in his initial decision of what sort of a world to actualize God will not be under such constraints—and if self-command is incoherent, so that God has no aretaic requirements, then domination will always be the same as being on balance better. On the other hand, on a natural law view, we might also expect that there be fewer aretaic constraints on preferences, because God is not a member of any natural kind, and every possible natural kind reflects the divine nature.

This means that while for us the scope of weak incommensurability argued for above may be much greater than that of strong incommensurability, in

the case of the divine decision what to create, the distance between weak incommensurability and strong incommensurability is likely to be significantly smaller, to the point that the fact that there is weak incommensurability between two divine options is *prima facie* reason to think that there is strong incommensurability as well.

We can now go back to the principles NOMAX, DCF and NNC, and argue that NOMAX is false, while DCF and NNC are compatible with NIC.

5.2. NOMAX and NNC. Consider a world w_{NC} that contains no contingent beings.⁴ Is there any world w such that God's option of actualizing w would dominate his option of actualizing w_{NC} ? (I will from now on more briefly say that such a world w dominates w_{NC} , but strictly speaking the domination relation holds between the options—the actualizings—rather than the outcomes.)

As a warm-up, observe that no world that contains evil will dominate w_{NC} . For w_{NC} is better than any such world precisely in light of the fact that it contains no evil. Avoiding evil versus promoting the good was one of the sources of incommensurability that we identified. And in this case, we are dealing with strong incommensurability, since God surely has no duty to create any world that has evil.

But wouldn't a really good world w with no evil dominate w_{NC} ? This is not clear. First of all, w_{NC} exhibits the aesthetic value of simplicity to the maximal degree possible: it is a world where only God exists. This point is more compelling if God is simple, but it also applies if he is not, as long as there is no world where God is less complex than in w_{NC} .⁵ Simply by containing one or more contingent beings, w is less simple and elegant than w_{NC} . Granted, w may exhibit many other aesthetic and non-aesthetic values to a greater degree than w_{NC} . But the maximal simplicity of w_{NC} does make w_{NC} better in respect of a distinct value, and if w is better in other respects, then this should yield weak incommensurability.

Since in the case of God, there is a presumption of strong incommensurability given weak incommensurability, it is likely that w_{NC} and w are strongly incommensurable.

Perhaps one might worry about cases where w_{NC} is only somewhat more simple than w , but w greatly exceeds w_{NC} in respect of other values, and that ensures that actualizing w is on balance better than actualizing w_{NC} .

⁴Those who think that every contingently true proposition is made true by a contingently existing states of affairs will deny the possibility of such a world. For they will say that if, *per impossibile*, there were no contingent beings, then the concrete state of affairs of there not being any contingent beings would make true the proposition that there are no contingent beings, and hence there would, contrary to the assumption, be a contingent being, namely that state of affairs. That is a very different argument against NNC than the one based on NIC that I am considering, and I do not accept this metaphysics of truth.

⁵Likewise, if one thinks with Wolterstorff (1970) that there are other necessary beings, namely Platonic abstracta, the point is weakened, but still survives.

An artist, however, seems to have a legitimate moral freedom to choose to pursue a particular aesthetic value, subject to restrictions of vocation and moral obligation. And God has no externally given vocation and would be wronging no one by actualizing w_{NC} . He would not be wronging himself, since he is eternally perfectly happy—this is particularly compelling if God is a Trinity, which allows for the goods of interpersonal love—and he would not be wronging anyone other than himself, since one cannot wrong a being that never exists. By refraining from creating any contingent beings, God would be an artist actualizing a minimalist world of great simplicity and infinite value. Here, one might think of an extreme version of John Cage’s famous $4'33''$, a composition consisting of four minutes and 33 seconds of silence, but with an infinite ambient value being provided by the perfection of the divine artist. Why shouldn’t such a work be permissible and possible to God?

Moreover, it is not clear that there can be cases where w_{NC} is only somewhat simpler than w but w greatly exceeds w_{NC} in respect of other values. For the other values that w could exemplify may well be in tension with simplicity. A world would be very good if it contained many happy creatures, and is *ceteris paribus* the better the more such creatures there are. But if there are many creatures, the world is thereby made significantly complex. Of course, well-ordered complexity is also a value, but it is a value incommensurable with maximal simplicity.

Furthermore, w_{NC} exhibits the value of uniformly maximal excellence. Every being at w_{NC} is maximally excellent, since God is the only being at w_{NC} .⁶

Finally, there is a strand in at least the Christian tradition that suggests that because God is the ultimate *telos* of the universe, so that God’s motivation in creating a being is something like creating an image of himself. But necessarily every creature falls infinitely short in reflecting the infinite and perfect God. An artist can reasonably accept that a work falls short in imaging what it is supposed to imagine when it does the best that the medium allows. But an artist can also reasonably decide not to make a work that falls short, precisely because it falls short. There is a way in which an artist’s refusal to make an image of something transcendent itself expresses the transcendence of that transcendent. Some things we can express by speaking, some by whistling and some by complete silence. There is an artistic quality in w_{NC} not found in any other world. This is perhaps particularly plausible in a Trinitarian context, where the Father is seen as creating the universe by the Son, the Logos, the Father’s consubstantial Image. In choosing to make w_{NC} actual, the Father could then be expressing to his beloved Son that beloved Son’s utter transcendence, the impossibility of any creature being a fully adequate image of him.

⁶Or, on views on which in addition to God, there are necessarily existing abstracta, every concrete being is maximally excellent, and so we have maximally uniform maximal excellence.

If, further, we see it as a *necessary* feature of God’s motivation in creating a creature that the creature should somehow reflect God, then there is a sense in which every creature’s creation involves an imperfect achievement of the *telos*, something like an evil (cf. Adams 1999, Chapter 5). And the same kinds of reasons that make avoidance of evil and pursuance of good incommensurable will make it plausible that there is a respect in which it is better that all beings perfectly achieve the *telos* of all being than that there be beings that do not.

Such considerations make it very plausible that no world that contains creatures will dominate, or even be on balance better for God to actualize, than w_{NC} . But if this is correct, then NOMAX is false, since we have found one world, namely w_{NC} , than which there is no better.

The above considerations make it plausible that NNC is true, and that it is compatible with NIC.

5.3. DCF. The principle DCF is vague, but it still has some bite. The preceding argument concludes that God can create a world w_{NC} with no creatures. Assuming that God in fact exists, there is one other world that God can create—namely ours, which is plainly different from w_{NC} . But this is not enough to yield the “great variety of significantly different types of worlds” that DCF talks about.

NIC, as we have understood it, when conjoined with the proposition that God exists necessarily implies that a world is only possible when no world is on balance better for God to actualize. It will be convenient in this section to allow for some worlds that are not metaphysically possible. To do that, when I talk about “worlds”, I will be loosely meaning worlds that are narrowly logically coherent in some reasonable logic, and where the only thing that might preclude them from possibility is that God’s moral or rational nature might preclude him from actualizing them.

We will see that when we take seriously the identified sources of incommensurability, we do in fact get a wide variety of mutually incommensurable worlds, and it becomes at least somewhat plausible that there will be a large variety of weakly (respectively, strongly) *maximal* worlds, i.e., worlds that are not dominated by (respectively, on balance worse to create than) any other world.

One might initially think that we can always improve on a world by simply adding more goods to it. We can add to any world eternally happy immaterial and morally perfect mathematicians, in sufficient quantity⁷ to increase the number of happy beings. But adding entities to a world will decrease a world’s simplicity or aesthetic economy, or at least one important and distinctively valuable aspect of this simplicity. Moreover, if we expand a world by adding a good to it, we either multiply the entities falling under

⁷If we start off with a finite number of happy beings, one will be enough. But if we have an infinite number of happy beings, then to increase the number of happy beings we will need to add a higher infinity of happy beings.

some already existent *type* of good, which seems uneconomical with respect to God's aim to express his infinite goodness in creation, or we multiply the *types* of good, which is apt to make for a less elegantly unified world. Thus the addition is likely to provide a gain in respect of one value but a loss in respect of another. The larger world will be weakly incommensurable with the smaller, and given the presumption that in the case of God's creative decision weak incommensurability implies strong incommensurability, there is likely to be strong incommensurability as well.

This line of thought blocks the move to taking the best world to be a multiverse. For while multiverses do well with respect of the diversity of goods, they do not do well with respect to economy.

Say that a world is *wholly good* provided that (a) every substance in the world capable of well-being and ill-being has an existence that is on balance good for it, and (b) every substance in the world is on balance intrinsically valuable. (The talk of substances here does not commit me to any particular ontology of what substances are like, and is meant to be compatible even with theories on which substances like photons and cats are bundles of properties.)

If we accept the Augustinian argument that, necessarily, all that exists is created and sustained in existence by God and God only creates or sustains good things in existence, so that evil must be a privation, then it will be plausible that every possible world at least satisfies (b), and probably also that it satisfies (a) as well, and hence that every possible world is wholly good. But even if not every possible world is wholly good, intuitively there are plenty of wholly good worlds.

Say that a world w is *finitely inhabited* provided that it only has finitely many substances. I now claim that:

(INCOM) If w_1 and w_2 are wholly good worlds, at least one of which is finitely inhabited, and if w_1 and w_2 do not contain exactly the same substances, then they are weakly incommensurable.

For there are two possibilities. Either w_1 and w_2 have the same number of substances or one of them has fewer than the other. Suppose first that, say, w_1 has fewer substances than w_2 . Then there is an aspect of the value of simplicity—the number of substances—in respect of which w_1 does better than w_2 . Thus w_2 does not dominate w_1 . But on the other hand, there is some substance s at w_2 that does not exist at w_1 . Because the worlds are wholly good, s 's existence is intrinsically valuable. So w_2 is better than w_1 in respect of containing a valuable substance that w_1 does not contain.

Suppose, on the other hand, that w_1 and w_2 have the same number of substances. If w_1 and w_2 do not have all their substances in common, it follows that each of them contains at least one substance that the other does not contain. And because the worlds are wholly good, each substance in them is valuable. So there is a respect in which w_1 is more valuable than w_2 , namely its having a substance s_1 whose existence is intrinsically valuable

and which is lacking in w_2 , and a respect in which w_2 is more valuable than w_1 , namely its having a substance s_2 with intrinsically valuable existence and which is lacking in w_1 .

Moreover, it is plausible that we can move from weak incommensurability to strong incommensurability, particularly in the case of wholly good worlds. God's artistic choice offers him much freedom.

Now consider this plausible plenitude and optimality conjecture:

(PLEN) For most finitely inhabited and wholly good worlds w , there is a wholly good world w^* (perhaps equal to w) that (a) has exactly the same substances as w and (b) is not dominated by any other world with exactly the same substances.

There is some plausibility to thinking that typically given a finite set of denizens, there is at least one weakly optimal way to arrange them, where a weakly optimal arrangement is one that is not dominated by any other.

If PLEN and INCOM are true, then so is DCF. For any world w^* such as in PLEN will be weakly optimal: by (b) it is not dominated by any other world with the same substances, and by INCOM it is not dominated by any other wholly good world. But no wholly good world is dominated by a world that's not wholly good, since a world's being wholly good is a distinct kind of value (cf. Section 3.3, above). And it is also plausible that most worlds that are weakly optimal are strongly optimal, i.e., such that there is no on balance better world for God to create, given God's creative freedom.⁸ And so PLEN makes it likely that there are going to be strongly optimal worlds containing only angels, and weakly optimal worlds containing both angels and humans, and weakly optimal worlds containing angels, humans and aliens, as well as many other options, in various quantities. This yields a significant diversity in strongly optimal worlds. But strongly optimal worlds seem to be apt candidates for God to create, so this yields a significant diversity in worlds God can create.

If, further, the world w in PLEN contains a law-bound substance—a substance that can only exist given a particular system of laws of nature—then w^* will have to have the same system of laws holding in it. If many different mutually incompatible systems of laws of nature allow for essentially law-bound substances in a wholly good world, then PLEN will make plausible the existence of a nomic wide variety of strongly optimal worlds.

Suppose, moreover, that essentiality of origins holds, so that no substance can exist without its causal history. Then w^* will have to be very much like w to contain the same substances: all the causal histories of substances have to be the same. This makes for an even greater variety of worlds that God can create. For most worlds—understood here as worlds that are possible except perhaps because of God's rationality and goodness—that are finitely

⁸This needs to be distinguished from another sense of "strongly optimal", on which something is strongly optimal provided that it is strictly better than all the alternatives.

inhabited and wholly good, there will be a possible and creatable world that has the same substances and histories.

5.4. Omnipotence. We haven't shown that every world is creatable, and that is how it should be. It is plausible that a world containing people who are righteous and yet suffer pointless horrendous pain and separation from God for eternity is not creatable. But we have shown that one can coherently accept NIC and still accept DCF, and that given the earlier discussion of incommensurability, DCF is plausible. The fact that there are worlds that God rationally or morally cannot create is not a challenge to omnipotence. For, first, given that God exists necessarily, such worlds will not be possible worlds and an inability to create an impossible world is not a serious challenge to omnipotence. Second, one may here profitably employ a recent account of omnipotence by Pearce and Pruss (2012) on which a being is omnipotent just in case it has perfect freedom and an efficacious will. But such uncreatable worlds are no challenge to an efficacious will. And, plausibly, perfect freedom does not require being able to actualize worlds that it is irrational or immoral to create. Third, in the case of what God's goodness prevents him from creating, we can use Aquinas' line that to do what is morally wrong would be more like an exercise of impotence than of power (Aquinas 1920, I, 25, 3, ad 2).

5.5. Strong and weak actualization. The above discussion was phrased in a way that suggests that God can just will any specific possible world to be actual, and it will be actual. But while Calvinists and Thomists accept this, Molinists, simple-foreknowledge theists and open theists deny this. Instead, they distinguish between strong and weak actualization. What God does in creating is that he *strongly actualizes* some state of affairs, from which, together with indeterministic influences such as especially free creaturely choices, some other state of affairs follows, which other state of affairs is said to have been *weakly actualized*. The Molinist insists that God can decide what he strongly actualizes in light of his knowledge of what would eventuate from the strong actualization, while the simple-foreknowledge theist and open theist hold that in deciding what to strongly actualize, God cannot rely on information about what would indeterministically come from the decision.

Similar points about incommensurability can be made, albeit in a more complicated way, on Molinist, simple-foreknowledge and open theist views. For instance, on a Molinist account instead of talking about God choosing between worlds, one will have to talk about God choosing between feasible worlds—worlds compatible with the conditionals of free will being as they are. And on simple-foreknowledge and open-theist views, one may have to consider God's decisions in a more piece-meal way, since some of God's creative actions may depend on creaturely responses to other divine actions.

The simple foreknowledge and open theist views allow for two additional forms of incommensurability in divine decisions, namely risk-based

incommensurability and perhaps also incommensurability of chances. Thus, strongly actualizing a state of affairs that would be certain to result in a small good will be incommensurable with strongly actualizing a state of affairs that would be equally likely to result in a very great good or a lesser but still great evil. And there will be cases where different creative options might result in incommensurable chances of equal goods, say incommensurable chances of agents choosing well.

6. CONCLUSIONS

If we take seriously the wide-spread incommensurability surrounding God's actions, we can find not only plausibly contrastive explanations of divine creative decisions, but we can resist the idea that God has to create a multiverse, defend the idea that God did not have to create anything, and make plausible that God's moral and rational nature made available to him many creative options.⁹

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