

Spi	Journal Code	Article ID	Dispatch: 29-FEB-16	CE: No
	THEO	12096	No. of Pages: 33	ME: No

THEORIA, 2016
doi:10.1111/theo.12096

Parity, Imprecise Comparability and the Repugnant Conclusion

by

RUTH CHANG

Rutgers University

Abstract: This article explores the main similarities and differences between Parfit's notion of *imprecise comparability* and my notion of *parity*. I argue that *imprecise comparability*, insofar as it assumes that if two items are comparable, one must be better than, worse than, or equal to the other, is an unstable notion that is better understood as allowing that if two items are comparable, there are four, and not three, basic relations between them that can hold: better, worse, equal and on a par. The difference between Parfit's imprecise comparability and parity is then illustrated by examining each of the ~~natural~~ solutions to the problem posed by the Repugnant Conclusion that they respectively underwrite. I suggest that parity provides an arguably more ecumenical solution to the problem.

Keywords: Parfit, imprecision, imprecise comparability, imprecise equality, Chang, parity, on a par, incommensurability, incomparability, the Repugnant Conclusion, trichotomy, tetrachotomy, structure of normativity

IT IS A SPECIAL PLEASURE and honour to be able to celebrate Derek Parfit on the occasion of his award of the 2014 Schock Prize.

I begin this article with a few words about Parfit's impact on me personally and on the discipline more generally.

It is sometimes said that philosophy cannot be taught. But I have no doubt that Parfit made me into a philosopher. If it weren't for his guidance and mentorship, I would most certainly not be a philosopher today. It is not only his unfailingly generous spirit and purity of philosophical drive – which have been no doubt a guiding light for dozens of philosophers he has trained – that make him such an extraordinary presence on the philosophical scene. His rich and powerful writings, especially his groundbreaking *Reasons and Persons*, have set the agenda and shaped decades of writing in ethics, population ethics and personal identity. His latest magisterial work, *On What Matters*, promises to be central to this century's developments in both ethics and metaethics; and his forthcoming work in population ethics and in the philosophy of time will, I suspect, revolutionize thinking in those areas as well. There are very few philosophers of whom one can say that *all* of their writings have made significant contributions to the discipline; Parfit, it seems to me, is one of those few. Watching him do philosophy, and doing philosophy with him off and on over the past twenty-odd years, has been an eye-opening honour and privilege.

correct

AQ10

please replace with "A." attached

One of the things I admire most about Parfit's work is that it seems so often *right* – and illuminatingly so. But celebrations of a philosopher's work do not take the form of untarnished homage, however genuinely felt and well warranted. Instead, we must poke and prod, question or criticize. So it is in that spirit – more of poking and prodding than questioning and criticizing – that I want to explore a matter concerning normativity about which Parfit and I seem to disagree.

When, as a graduate student, I first presented Parfit with my idea that two items could be *on a par* – comparable and yet neither of them better than the other nor both equally good because not like scientific quantities – Parfit did not laugh in my face, as a less open-minded philosopher might have done, but instead encouraged me to work on the idea. As it turned out, he had had a related idea of *imprecise comparability*. And as I worked on my dissertation, I hoped that our ideas were more or less the same, and that imprecise comparability would be a way in which parity could be explained or expressed.¹ Over the years, however, as I continued to talk to Parfit and think about parity, it has become clear to me that Parfit's imprecise comparability and my parity are distinct notions that are underwritten by distinct views about how normativity is structured. Our respective conceptions entail different views about what I will call the "structure of normativity".

In this article I explore the main similarities and differences between imprecise comparability and parity in relation to what I will call the "standard view" of normativity. As I will suggest, while proponents of either imprecise comparability or the standard view can share a particular view of the structure of normativity, proponents of parity reject that view. Thus imprecise comparability departs from the standard view *adverbially*, as it were, that is, only in the way the structure of normativity is realized. Parity, in contrast, departs from the standard view in that it entails an alternative structure. Along the way, we will distinguish two conceptions of imprecise comparability: the neutral conception, which proponents of parity can accept, and the trichotomous conception, which they cannot. I suspect that Parfit favours the trichotomous conception, and I want to give some reasons for thinking that he should instead accept parity and imprecise comparability neutrally conceived.

At the end of the article, I briefly examine how Parfit's imprecise comparability and my parity respectively lead to different solutions to a problem Parfit made famous in *Reasons and Persons*: how to avoid the Repugnant Conclusion. By "lead to" I mean not logically, but rather genetically: if you start with one notion,

¹ Other views I assimilated to my own include Griffin's (1986) and Hurka's (1993) "rough equality". I now suspect that Griffin had in mind some kind of value indeterminacy and Hurka had in mind something more akin to Parfit's imprecise equality.

THEO-12096 Ruth Chang for Theoria replacement abstract for 'Parity, Imprecise Comparability and the Repugnant Conclusion'

A. [Please replace the below for the existing abstract]

Abstract:

This article explores the main similarities and differences between Derek Parfit's notion of *imprecise comparability* and the related notion I have proposed of *parity*. I argue that imprecise comparability, insofar as it assumes 'trichotomy' – that if two items are comparable, one must be better than, worse than, or equal to the other – must be rejected. Instead, we should understand imprecise equality as parity, and imprecise comparability as entailing 'tetrachotomy' – that if two items are comparable, one must be better than, worse than, equal to, or on a par with the other. I then illustrate the difference between Parfit's notion of imprecise comparability and parity by examining how each notion might be employed in a solution to the problem posed by the Repugnant Conclusion in population ethics. I suggest that parity provides an arguably more ecumenical solution to the problem.

you will naturally be attracted to one solution, and if you start with the other, you will naturally be attracted to a different solution. In his article for this volume, Parfit proposes a solution to the problem posed by the Repugnant Conclusion that relies on his conception of imprecise comparability. I suggest that parity provides an alternative, arguably more ecumenical, solution.

1. The Structure of Normativity and the Standard View

Practical normativity includes values, normative reasons, and the conclusions of Practical Reason, the faculty or domain that takes, in a set of circumstances, values and reasons as inputs and delivers as outputs conclusions about what one has most or sufficient reason to do or feel.

The “structure” of a value, as I will use the term, is given by the basic ways in which a value can ~~compare~~ ^{relate} two items.² Justice, for instance, can ~~compare~~ ^{relate} acts, policies, outcomes, etc., it seems, in one of three basic ways: one item can be better than the other with respect to justice, it can be worse, or the two can be equally just. If, as it seems, a value can ~~compare~~ ^{relate} items in only one of three basic ways – by being better or worse than the other with respect to that value, or being equally good – values are trichotomous in structure. Indeed, a trichotomous structure of value is quite natural; it mirrors the structure of non-evaluative criteria like length, weight and ~~reasons~~ ^{volume}. Just as one item can only be greater than, lesser than or equal to another in the non-normative realm, it can only be better than, worse than or equal to another in the evaluative realm.

Trichotomists about the structure of value are typically also trichotomists about the structure of practical reasons, and *vice versa*, especially if they are buck-passers in one way or another. The structure of practical reasons is given by the basic ways in which practical reasons can be ~~compared~~ ^{related}. Just as one item can only be better than, worse than or equal in value to another, one reason can only be stronger than, weaker than or equally strong as another.³

Finally, trichotomists about the structure of value and the structure of practical reasons are likely to be trichotomists about the structure of Practical Reason, that is, about the kinds of basic conclusions there can be as to what one practically ought to do. When faced with a choice between two alternatives, it seems that

2 By “basic” relation, I mean a relation in terms of which other relations can naturally be understood. There are of course many ways to carve up a domain of relations. The standard trichotomy of relations, for instance, can be equivalently expressed in terms of logical operations on “at least as good as”. Since, however, this way of expressing the standard view obscures the main point of difference between imprecise comparability and parity, I represent the standard view in terms of the usual trichotomy.

3 For some theorists about practical reasons, it will be doubtful that there is some set of basic relations by which reasons can be normatively related. I argue against such doubts in Chang (2015).

there can only be three possible conclusions as to what you practically ought to do: you have most reason to do one thing, most reason to do the other, or sufficient reason to do either. Thus not only is the structure of value and practical reasons commonly thought to be trichotomous, so too are the conclusions of Practical Reason itself. When the structures of values, practical reasons and Practical Reason are all trichotomous, I will say that normativity has a trichotomous structure. For simplicity, I will primarily focus on value here, but the points can, I believe, be extended to reasons and the conclusions of Practical Reason more generally.

The assumption that normativity has a trichotomous structure is part of what we might call the "standard view" of normativity. On the standard view, there are three basic ways items can be evaluatively ^{related} compared: by being "better", "worse" or "equal"; and similarly, there are three basic ways reasons can be normatively ^{related} compared, and three basic answers to the question of what you practically ought to do.

The standard view makes a claim not only about the structure of normativity, but also about its "character". The structure of normativity imposes a ranking on items ~~in a ranking~~ and this ranking can have a variety of features. These features constitute the character of normativity, that is, the way in which a normative structure is realized. For our purposes, we focus on one feature: information about the magnitude of the differences between ranked items that cannot be derived from the mere order ^{of} given by the ranking.

Some rankings, for instance, are *merely ordinal*; that is, they lack non-derivative information about the magnitude of the differences between ranked items. We can set those aside since they are not relevant for our purposes. *Cardinal* rankings, by contrast, are those that contain non-derivative information about the magnitude of the differences between ranked items. The structure of length, for instance, imposes a ranking on items that contains information about how much longer one item is than another. And justice might be understood in a way that admits of a cardinal ranking: the difference in justice between a pair of policies can be significant or trivial.

Notice that our use of "cardinal" is neutral on the question of how the magnitude of differences between cardinally ranked items is to be measured. According to the standard view, cardinal rankings are measurable by reference to a scale of units by which the items are ranked.⁴ Thus a cardinal ranking, on the standard

⁴ Henceforth reference to "units" should always be understood as implying units that are part of a scale of units – allowing of course that there may be many such scales – by which other items with respect to the relevant value can be measured. The idea that a unit belongs to a scale of units is needed to block the degenerate case in which the evaluative difference between two items, whatever it might be, is stipulated to be the unit that measures the evaluative difference between them.

1 interpretation, is a ranking in which the magnitude of the difference between 41
 2 items is given by some (whole, rational, or real) number of units on a scale: if A 42
 3 has more units than B, it is better; fewer, worse; and if A and B have the same 43 — λ
 4 number of units, they are equally good. There are two main types of cardinal 44
 5 scale, an *interval* scale, which has no absolute zero, such as the Celsius tempera- 45
 6 ture scale, on which the difference between 10 and 20 units on the scale is the 46
 7 same as the difference between 17 and 27 units, and a *ratio* scale, which has an 47
 8 absolute zero, such as the meter scale for length, on which 20 units on the scale 48
 9 is twice as great as 10 units. Standardly, then, in measure-theoretic terms, a cardi- 49
 10 nal ranking is unique up to either affine or linear transformations. 50

11 This view of cardinality is what we might, following Parfit, call “*precise*”: car- 51
 12 dinally comparable items have differences that can be measured on a scale of 52
 13 units of the relevant value. If the difference between two items can be represented 53
 14 by a number of units – twice as bad, 6.34 units better, and so on – the items are 54
 15 precisely cardinally comparable. This is not to say that there *are* units of value in 55
 16 any ontologically weighty sense. The point is rather that, when items are cardi- 56
 17 nally comparable, the magnitude of their difference can be represented by some 57
 18 number of units. 58

19 In sum, the standard view makes two claims: 59

- 20 1. *Structure*: Normativity is *trichotomous* in structure, that is, there are only 60
 21 three basic ways in which two items can be evaluatively ^{related} compared – as 61
 22 being better, worse or equal to one another – and similarly for practical 62
 23 reasons and the conclusions of Practical Reason. 63
- 24 2. *Character*: The character of normativity is either merely ordinal or pre- 64
 25 cisely cardinal. All cardinal rankings that realize the structure of normativ- 65
 26 ity are *precise*, that is, the differences between items on such a ranking can 66
 27 be represented by some unit on a scale of relevant value. 67
 28 68

29 It is against these claims that we will be understanding imprecise comparability 69
 30 and parity. 70

31 32 2. Incommensurability and Imprecise Comparability 72

33 73
 34 Two items are *precisely comparable* when they are cardinally comparable and 74
 35 their evaluative differences can be measured by a unit of the relevant value. If we 75
 36 negate the precision of precise comparability, we get imprecise comparability: 76
 37 two items are *imprecisely comparable* when they are cardinally comparable ^{but} 77 — λ e
 38 yet their evaluative differences cannot be measured by a unit of value. 78

39 ~~According to the standard view, cardinal comparability is precise: there can be~~ 79
 40 ~~no imprecise cardinal comparability. I think we should accept imprecise cardinal~~ 80 λ, e

1 comparability. But I also think that Parfit's terms of art, "precision" and "imprecision", duplicate existing terms we have for the same ideas, ^{and} so that we can
 2 describe precise and imprecise comparability in more familiar terms. I suggest
 3 that we understand imprecise comparability in terms of the notions of cardinal
 4 comparability and *incommensurability*. ~~I confess that I make this suggestion in~~
 5 ~~part because I have trouble understanding them in any other terms.~~ Understanding
 6 imprecise comparability in these terms also helps us to see why the proponents of
 7 the standard view might think that cardinality must be ^{precise}.

8 Two items are incommensurable with respect to some value just in case ^{they}
 9 ~~merits~~ cannot be measured on a common scale of units of that value. This is the
 10 correct, etymologically sound, meaning of the term; the idea traces back to the
 11 Pythagoreans, who first noticed that ^{the} length of diagonal of the unit square,
 12 could not be put on the same scale of units of length as 1, the length of the side
 13 of the unit square. Since those lengths – so they thought, since ~~they did not know~~
 14 ~~about~~ real numbers – could not be measured by a common unit of length, they
 15 were *assymetros*, on what we now know as "incommensurable".⁵

16 Applied to ^{goods} value, as by Aristotle in the *Nicomachean Ethics*, two ^{goods} items are
 17 incommensurable with respect to some value if they cannot be put on a scale of
 18 that value, that is, if they cannot be measured by a common unit of that value. To
 19 borrow one of Aristotle's examples, there is no unit of value that measures the
 20 value to human well-being of both beds and shoes. Both conduce to human flourish-
 21 ing, but there are no "flourishings" in terms of which their respective contribu-
 22 tions to flourishing can be measured.

23 If two items cannot be measured by a common unit of value, ~~then they are~~
 24 ~~incommensurable with respect to that value.~~ That is, they are not *precisely* cardi-
 25 nally comparable; there is no interval or ratio scale by which their value can be
 26 measured. Thus, they are either not cardinally comparable, or if they are cardi-
 27 nally comparable, they are not *precisely* cardinally comparable but *imprecisely*
 28 cardinally comparable. The evaluative difference between them has some magni-
 29 tude, but it cannot be ~~precisely~~ measured in units.

30 Note that, while two items might be commensurable with respect to one value,
 31 they might be incommensurable with respect to another. Suppose you could ~~either~~
 32 ^{either} save the life of your child or those of two strangers. With respect to the value of
 33 saving the greatest number of lives possible, saving your child and saving two
 34 strangers ^{are} commensurable: saving the strangers ^{is} twice as good as
 35 saving your child. But with respect to the goodness of saving lives, they might be
 36 incommensurable. The respect in which items can be ^{related} ~~commensurated or not~~

37
 38
 39 ⁵ Thanks to Alan Code for confirming the etymology of the term in conversation. See also
 40 Heath (1921).

1 ~~ranked or not~~ is what I have called a *covering consideration*. Two things are 41 — T
 2 never ranked *simpliciter*, but only relative to a covering consideration. Although I 42
 3 will sometimes omit talk of a covering consideration, one should always be 43
 4 implied. And sometimes, I will talk as if the covering consideration is a single 44 — e
 5 unified value, V. This is because I believe that all covering considerations can be 45 — e
 6 expressed in terms of values, and that in the cases of interest, where there are 46 — e
 7 multiple values at stake, they form a value unity. But nothing I say here turns on 47 — e
 8 those further assumptions.⁶ Thus two items are incommensurable with respect to 48
 9 V just in case there is no scale of units of V-ness on which they can be ranked. 49

10 Note that commensurability ~~(the idea that there is a unit by which the relevant~~ 50 — e
 11 ~~values of items can be measured)~~ entails *precision* in the representation of the 51 — e
 12 evaluative difference between two items; and, vice versa, precise comparability 52
 13 entails that the items ranked are commensurable. Indeed, a ranking of commen- 53 — e
 14 surables *just is* a precisely cardinal ranking of them: ~~if there is a unit by which~~ 54 — e
 15 ~~the value of two items can be measured, then those items are commensurable and~~ 55 — e
 16 ~~precisely comparable with respect to that value. Commensurability entails precise~~ 56 — e
 17 ~~comparability, and precise comparability entails commensurability.~~ Thus, strictly 57
 18 speaking, we can do away with the term “precise comparability” and speak 58
 19 instead of the more familiar idea of commensurability. 59

20 Incommensurability – the idea that there is no unit of value by which the rele- 60
 21 vant value of items can be measured – entails *imprecision* in the representation of 61 — e
 22 the evaluative difference between two items, assuming that there is such a differ- 62 — e
 23 ence. If two items are cardinally comparable but incommensurable, they will be 63
 24 *imprecisely comparable*: the magnitude of the evaluative difference between them 64
 25 cannot be ~~given as a number of~~ ^{measured by} units of value. And if two items are imprecisely 65 — e
 26 comparable, they will be incommensurable. But incommensurable items need not 66
 27 be imprecisely comparable since there might be *no* evaluative difference between 67
 28 them, that is, incommensurable items may not be cardinally comparable. 68

29 Thus we might understand imprecise comparability as follows. Two items 69
 30 are imprecisely comparable with respect to V just in case they are ~~that measures their V-ness~~ 70 — e
 31 (i) *incommensurable* with respect to V – there is no scale of units ~~on which their~~ 71 — e
 32 ~~V can be measured~~ – and (ii) they are *cardinally comparable* with respect to V – 72 — e
 33 the comparison between them includes non-derivative information about the mag- 73
 34 nitude of the ~~evaluative~~ difference in V between them. 74 — e

35 Thus imprecise comparability can be understood in terms of the more familiar 75 — e
 36 notions of cardinal comparability and incommensurability. Strictly speaking, we 76 — e
 37 77 — e
 38 78
 39 79
 40 80

6. See Chang (2004a and 2004b), where I argue that covering considerations can be expressed evaluatively and, more controversially, that whenever there is a non-stipulated, meaningful comparison generated by balancing competing considerations, those considerations form a unity that is a single value.

could do away with the term "imprecisely comparable". But since our aim is to explore the differences between Parfit's imprecise comparability and parity, it will be useful to keep the term in play.

Imprecise comparability poses a challenge to the standard view ^{by that it entails} that the view is mistaken about the cardinal character of normativity. Cardinality can be not only precise, but also imprecise. ^{That is,} cardinally comparable items can ~~not only~~ be commensurable; ^{but} they can also be incommensurable. But imprecise comparability as we have ^{understood it} defined it is neutral on the question of normativity's structure. So imprecise comparability, ~~as we have been understanding it~~, departs from the standard view only in the way in which the structure of normativity, whatever it might be, is realized.

Italics Can cardinally comparable items be incommensurable? It seems plausible that most of the interesting comparisons we make between items allow for cardinal differences between them, and yet these are differences that cannot be measured by some unit of value. Take ^{for example} the achievement of a lifetime goal and the enjoyment of a gourmet meal. With respect to making your life go well, the achievement is better than the meal, and by a lot. So there is cardinal information about their evaluative difference. But it is hard to believe that there is some unit of well-being, such as "flourishons", by which we could measure the two achievements and determine that the achievement is 6.4 times or 9.23 units better than the meal. We have cardinal comparability, but the information about the magnitude of evaluative difference between them is "imprecise".

3. Does Cardinal Comparability Require Commensurability?

I have just claimed ~~that it is plausible~~ that cardinally comparable items can be incommensurable. If that is right, then why does the standard view – standard because commonly assumed – say otherwise? Why think that cardinal comparability requires commensurability?

I suspect that some have thought that cardinal comparability requires commensurability because they think that all cardinal comparisons proceed with respect to a universal commensurans, ^{such as} in particular, money. ^{could} But is it really plausible that the value of your life, a gorgeous sunset, and an act of kindness can be measured by dollars? The issue is not how much money it would take for you to give up those goods – that addresses only the question of how much money it would take for you to give up those goods – but whether there is some amount of money that represents the value of those goods.⁷ Many philosophers have argued that it is a mistake to think that money can measure the value of both commodity goods and

⁷ As should be evident by now, I am understanding value as irreducibly distinct from preference.

So we have some reason to doubt that money is

1 "status" goods like friendship and human life. One argument runs as follows: The 41
2 rationality of your attitude toward a good is a function of whether that attitude 42
3 properly reflects the value of that good. If the value of your friendships is com- 43
4 mensurable with that of toaster ovens, it would be rational for you to have the 44
5 same attitudes toward both goods. But while it is rational to have respect and awe 45
6 ~~for~~ ^{towards} your friendships, such attitudes are irrational when taken toward toaster ovens. 46
7 Therefore, friendships and toaster ovens cannot be measured by the same unit of 47
8 value, such as dollars. ~~While I cannot do justice to the range of this and related~~ 48
9 ~~arguments here, I believe that these arguments at the very least cast serious doubt~~ 49
10 ~~on the claim that there is a universal commensurans.~~⁸ 50

11 It might be thought instead that cardinal comparisons proceed with respect to a 51
12 commensurans that is not universal but varies case by case. I have never seen an 52
13 argument for this claim. I suspect it confuses the idea that every comparison must 53
14 proceed with respect to a covering consideration with the idea that every covering 54
15 consideration must rank items by a scale of units. There is no *a priori* reason to 55
16 think that covering considerations must play a commensurating role. We know, 56
17 for instance, that they do not play such a role in merely ordinal comparisons. 57

18 It is worth noting that the assumption that cardinal comparability requires com- 58
19 mensurability ~~that imprecise comparability is not possible~~⁹ is just that: an 59
20 assumption. To the best of my knowledge, it has never been explicitly or directly 60
21 defended; rather, it operates as a background assumption of much work on ration- 61
22 ality, value and practical reason. ~~So we might turn to diagnosis instead:~~ ^{can we} ~~are there~~ 62
23 ~~explanations that debunk this widespread assumption by showing why it might be~~ ^{explaining} 63
24 ~~believed to be true?~~ ^{note the} 64

25 One ~~such~~⁹ explanation might ~~appeal to~~^{note the} pressures to believe that commensurabil- 65
26 ity is widespread. ~~(Indeed, such pressures might explain why some have thought~~ 66
27 ~~that money is a universal commensurans.)~~ If commensurability is widespread, 67
28 then it is natural to think that whenever we have cardinal comparability it will 68
29 turn out that we have commensurability. ~~And then it is a short slide to the modal~~ ^{I then} 69
30 claim that cardinal comparability requires commensurability. We ~~do not have to~~ ^{needn't} 70
31 understand this sequence of thought uncharitably, as involving a logical error, but 71
32 can instead recognize it as a natural, if not quite deductive, line of thought. 72

33 Two pressures favour the belief that commensurability is widespread. One is 73
34 theoretical. It would be nice, theoretically speaking, if there were widespread 74
35 commensurability, since that would allow us to generate rigorous mathematical 75
36 models of the normative relations among items. ~~We have, indeed, generated such~~ ^{f =} 76
37 77

8 See, e.g., Anderson (1993), Lukes (1997), Nussbaum (1986 and 1990), Radin (1987) and Sun- 78
stein (1997). 79

9 See, e.g., Broome (1991). 80

1 ~~models~~: normative expected utility theory, social choice theory, cost-benefit anal- 41
 2 ysis, and the like, presuppose widespread commensurability, and those models 42
 3 sustain work of intrinsic formal interest. 43

4 The other pressure is pragmatic, and it goes all the way back to Aristotle. 44
 5 Although, as Aristotle thought, beds and shoes are incommensurable ~~with respect~~ 45
 6 ~~to human flourishing~~, bedmakers must be shod and cobblers must be well-rested: 46
 7 we need to be able to trade incommensurables. Aristotle's solution was to invoke 47
 8 what he considered to be an artificial commensurans – money – by which incom- 48
 9 mensurables could be commensurated for the purposes of trade. So while dollar 49
 10 units do not in fact measure the value to human flourishing of either beds or 50
 11 shoes, they provide a basis for trade between them. ~~In short, it would be nice if~~ 51
 12 ~~there were widespread commensurability because that would provide a basis for~~ 52
 13 ~~trade among goods.~~ 53

14 Neither of these pressures, of course, *justifies* the claim that commensurability 54
 15 is widespread. Indeed, if items are incommensurable, then a mathematical model 55
 16 that presupposes the contrary, however elegant and formally satisfying, loses its 56
 17 descriptive and normative point. And if beds and shoes are in fact incommensura- 57
 18 ble, an artificially imposed commensurans invoked as a basis for trade between 58
 19 them cannot *justify* or warrant such trades as fair. 59

20 Indeed, both pressures support, not the belief that items are commensurable, 60
 21 but the belief that they are *imprecisely comparable*, that is, incommensurable and 61
 22 cardinally comparable. If items are incommensurable and cardinally comparable, 62
 23 that is, if their evaluative differences have a magnitude, ~~but not one~~ that can be 63
 24 represented by some number of units, then modelling value *as if* they can be so 64
 25 represented can be understood as an idealization – justified on theoretical and 65
 26 pragmatic grounds – of underlying imprecision. The truth is that items are *impre-* 66
 27 *cisely* cardinally comparable, but we can model their values *as if* they were pre- 67
 28 cisely cardinally comparable as a way of achieving a theoretically satisfying 68
 29 approximation of their value. This approximation may then, in turn, be a basis on 69
 30 which we can make fair trades: beds and shoes are imprecisely cardinally compa- 70
 31 rable, but six pairs of Louboutin shoes roughly make a Sealy Pillow-Top 71
 32 mattress. 72

33 So one debunking explanation goes as follows. It is easy to believe that card- 73
 34 inal comparability requires commensurability because it is easy to believe 74
 35 that commensurability is widespread. But the two pressures to believe that com- 75
 36 mensurability is widespread misfire: they support instead the belief that items are 76
 37 imprecisely cardinally comparable, that is, cardinally comparable and 77
 38 incommensurable. 78

39 The second explanation turns on the appeal of there being a parallel between 79
 40 the structure of the normative and that of the non-normative. The standard view, 80

as we have already noted, permits a striking isomorphism between “better than”, “worse than” and “equally good” in the normative domain, and “more than”, “less than” and “equal” in the non-normative. Given the assumption that normative and non-normative rankings have isomorphic trichotomous structures, why not think that those structures are also realized in the same way? If non-normative differences between items with respect to length can be represented by units of length, then why not think that evaluative differences between two items with respect to justice can be represented by units of justice? On this view, normative rankings are like non-normative ones not only in structure but also in character. ~~That is, in the way that structure is realized.~~ So a second explanation of why so many thinkers have assumed that cardinally comparable items must be commensurable is that they have unreflectively assimilated the character of non-normative rankings to normative ones. But, again, we have yet to see grounds for this assimilation.

We should not simply assume, as the proponents of the standard view do, that cardinality must be precise. In the absence of argument to the contrary, we should make room for imprecise comparability: we should allow that when two items have some magnitude of evaluative difference between them, that difference may not be measurable in units. Items may be cardinally comparable without being commensurable.

4. Incomparability

~~We now turn to parity.~~ Just as it was helpful to approach imprecise comparability by first understanding incommensurability, it will be helpful to approach parity by first understanding incomparability.

What is it for two items to be incomparable? According to the standard view, normativity is trichotomous in structure, and thus when that structure (determinately) fails to hold, items will be incomparable. Two items are incomparable with respect to *V* just in case one is not better than the other, worse than it, or equally good with respect to that *V*.

Must normativity have a trichotomous structure? If so, we can *define* incomparability, as many philosophers and economists do, as holding between two items whenever neither is better than the other and nor are they equally good. A simple thought experiment, however, shows that, insofar as we mean to capture our ordinary notions of comparability and incomparability, this would be a mistake.

Imagine a community of “dichotomists” who believe that if two items are comparable, one must be better or worse than the other. The structure of normativity is dichotomous; there are only two

indent

basic ways in which one thing can be normatively ^{related} compared to another, "better than", and "worse than". Across the river is a community of "trichotomists" who hold the standard view about the structure of normativity, that is, they believe that there are three basic ways in which one thing can be normatively ^{related} compared to another: "better than", "worse than" and "equally good".

One day a dichotomist and trichotomist meet while fishing on the river and compare the fish they have caught. The trichotomist says to the dichotomist, "The fish you caught and the fish I caught are equally good."

The dichotomist is perplexed. "What is this relation of being 'equally good'? If your fish isn't better than mine, it is worse than it; otherwise our fish are incomparable."

The trichotomist is dumbfounded. "No, there is a third way our fish could be evaluatively ^{related} compared beyond being better or worse than one another. They can be equally good. That's a third, basic relation that could hold between comparable fish. Here's an argument that it exists: Take your fish, of which you are so proud. Now consider its duplicate. Surely your fish and its duplicate are comparable with one another and yet comparable in a way that's different from how things are comparable when one thing is better or worse than another thing. That difference in how they compare is marked by a third basic relation, 'equally good'."

What is important about this thought experiment is ^{related} how ^{remains} we can hear the story.

~~One uninteresting way~~ We can hear it is as a clash between two stipulative definitions of "comparable". In this case, the trichotomist and the dichotomist are fishing boats passing in the night. But we can also hear it as a genuine, substantive disagreement about the basic ways in which items can be evaluatively ^{related} compared.

In particular, we can hear the dichotomist as making a *mistake* in overlooking a third basic relation. The trichotomist tries to convince the dichotomist that there is a third relation by leveraging a shared notion of comparability. Comparability holds when there is some basic relation that holds between items, and incomparability holds when there is no basic relation that holds between them. What the basic relations are, however, is an open question.

^{TWS} The upshot is that our intuitive notions of comparability and incomparability do not have built into them the idea that, in order for items to be comparable, they must be related in one of the usual trichotomy of ways. We should understand the standard view as making, not a conceptual claim about the structure of normativity, but a substantive one requiring defence. To my knowledge, the trichotomy has never been explicitly defended.

^g Thus if none of the usual trichotomy of relations holds between two items, it would be premature to conclude that they are incomparable. There is conceptual space in our concepts of comparability and incomparability for the possibility of a fourth basic value relation, what I have called "on a par", beyond the usual trichotomy of "better than", "worse than" and "equally good". ~~The structure of normativity could be tetrachotomous.~~ Items that are neither better nor worse than one another and yet not equally good need not be incomparable. They might be on a par.

5. Parity

Items are on a par when they are comparable, but one is not better than, worse than or equally good as the other. This is not a definition of parity since, as we have seen, which basic relations exhaust the conceptual space of comparability is a substantive matter open to debate. But it will do as an initial gloss.

Parity, as a basic relation beyond the usual trichotomy, entails that normativity has a tetrachotomous structure. One item can be better or worse than the other, the two can be equally good, or they can be *on a par*. A reason can be stronger than, weaker than, equal to, or *on a par* with another. And there are four possible basic conclusions of practical reason: you can have most reason for one thing; most reason for the other; sufficient reason for either because, with respect to what matters, there is no difference between them (equality); or sufficient reason for either because the evaluative difference between them does not favour one over the other (parity).¹⁰ Parity entails a non-standard view of the structure of normativity. And since precise cardinality entails trichotomy, by *modus tollens*, tetrachotomy rejects precise cardinality, that is, the view that cardinal comparisons are given by a unit of measure. Thus accepting the relation of parity requires rejecting both claims of the standard view.

The idea that there could be a fourth basic way in which items could be normatively *relate* may seem puzzling. After all, Lady Justice, holding her balance scale, allows only three ways two items *claiming to be just* can relate: if the one pan is heavier, that item is more just, if it is light, it is less just, and if the pans are evenly balanced, the items are equally just. How could there be some *fourth* way in which two items relate with respect to justice? What goes for justice, it seems, goes for normativity generally.

I believe that puzzlement over the possibility of parity has at its root the unreflective assumption that normativity has the same structure – and indeed character, as we already noted in our discussion of incommensurability – as non-normative quantities like weight, length and volume. When we compare quantities, a balance scale provides an appropriate model. But why should we think that justice, beauty and love are appropriately modelled in the same way as weight and length? Indeed, on its face, it seems absurd to think that models appropriate for measuring quantities are also appropriate for measuring justice, beauty and

¹⁰ A “fifth” conclusion is negative, namely that there is no conclusion. I believe that this lack of conclusion holds where the alternatives or reasons are incomparable. An alternative way to put the difference between the two ways in which you can have sufficient reason if there is cardinality is by saying that in one case there is a zero evaluative difference between the items, and in the other that there is a non-zero, unbiased difference.

1 love. Lady Justice suggests both trichotomy and precision where there may be 41
2 neither. 42

3 Parity typically holds between items that bear very different aspects 43
4 ~~(or "contributory values")~~ of V and yet are nevertheless in the same neighbour- 44 — e
5 hood of V-ness. Consider the comparison of Mozart and Michelangelo with 45
6 respect to creativity. They differ widely in the ways that they bear creativity: 46
7 Mozart bears values contributing to musical creativity and Michelangelo those 47
8 contributing to creativity in the visual arts. Yet with respect to creativity overall, 48
9 they are in the same neighbourhood of value: they are both creative geniuses. 49
10 Indeed, when two items are very different with respect to V but nevertheless are 50
11 in the same neighbourhood of V-ness, a trichotomist might conclude that they are 51
12 incomparable. Joseph Raz (1986), for instance, thinks that a career as a clarinet- 52
13 ^{qualitatively} ~~tist is incomparable with a career as a lawyer: the careers are very different in the~~ ^{as} 53
14 ~~ways that they count as good careers, and therefore they are incomparable.~~ ^{are} But if 54
15 ^{in overall} they also in the same neighbourhood ^{of} with respect to goodness as a career, how 55
16 could they be incomparable?¹¹ And if they are not in the same neighbourhood of 56
17 overall value, why not think that one is better? 57

18 Just as the trichotomist must give arguments to convince the dichotomist that 58
19 he has overlooked a third relation, the tetrachotomist has to provide arguments to 59
20 convince the trichotomist that she has overlooked a fourth relation. Some of those 60
21 arguments will exploit shared concepts to show that parity is possible (Chang, 61
22 2002b). Others will provide suggestive abstract models of value relations that 62
23 make room for parity (Chang, 2002a, 2005; Rabinowicz, 2008, 2011, 2012; Gert, 63
24 2004), while yet others will attempt to give formal accounts of parity (Carlson, 64
25 2010).¹² Still others, and probably in the end most persuasive, will provide argu- 65
26 ments showing that there is important philosophical work that only parity can do 66
27 or can do better than other standard notions (attempts made in Chang, 2009, 67
28 2012, 2013a, 2013b). The case for parity has to be made piecemeal, but, like the 68
29 trichotomist addressing the dichotomist, the tetrachotomist begins with the fact 69
30 that there is nothing in our concepts of comparability and incomparability that 70
31 rules out the possibility of a fourth basic relation. 71

32 Here I want to examine what I take to be the conceptual foundations of parity, 72
33 which in turn underwrite a simple model of value relations (Chang, 2002a). I sug- 73
34 gest that we understand value relations in terms of *evaluative differences* between 74
35 items ~~with respect to V~~. Evaluative differences can be individuated along two 75 — e
36 76

37 11 This is not to say that parity holds whenever items are in the same neighbourhood of value, or can 77
38 be represented by the same "grade" of value, A, B, C, etc. Sometimes items that are both "As" with 78
39 respect to a V are equally good with respect to V. Cf. Andreou (2015). The point is rather that it is hard 79
40 to see why we should think they are incomparable. I have canvassed and criticized the seven main argu- 80
ments for incomparability in Chang (1997).

dimensions: (1) “bias” or “direction”, that is, whether the difference favours an option or “points to” one of them, and (2) “magnitude”, that is, whether the difference has some extent and is therefore non-zero. We can understand the range of basic value relations as follows:

Value relation	Bias	Magnitude
A is better than B	✓	✓
A is worse than B	✓	✓
A and B are equally good	X	X
A and B are on a par	X	✓
[A and B are incomparable	n/a	n/a]

Fig. 1. xxxxxxxx

If A is better than B, then the evaluative difference between them is biased towards A, and if they are not merely ordinally comparable, as we are assuming ~~here~~, the difference has magnitude, that is, it is a cardinal difference. If A and B are equally good, their evaluative difference is not biased and has zero magnitude. If A and B are incomparable, then talk of the bias or magnitude of their evaluative difference is inappropriate, since part of what it is for two items to be incomparable is for there to be no evaluative difference – even a zero difference – between them.¹³ So there are two ways in which there can be “no” evaluative difference between items, either because the evaluative difference has zero magnitude, as in the case of equality, or because no evaluative difference exists, not even a difference of zero, as in the case of incomparability. If A and B are on a par, then their evaluative difference does not favour one alternative over the other – it has no direction – but it nevertheless has magnitude. Why shouldn’t we think that there could be evaluative differences that have magnitude but do not favour one item over another?

~~As a result of understanding parity as having these features of evaluative difference, it will be plausible that parity has certain formal features. “On a par” is irreflexive (A is never on a par with itself: the two are equally good); symmetric (if A is on a par with B, then B is on a par with A); and non-transitive (if A is on~~

¹² I understand each of these attempts as non-reductive – as not claiming that what it is to be on a par is essentially a matter of standing in one of the usual trichotomous relations – though I am unclear whether their authors intend them to be.

¹³ Although I place the case of incomparability in the table in order to help illustrate the difference between incomparability and parity, “is incomparable” is not a basic value relation but entails that no such relation holds. Of course, if items are incomparable with respect to V, they might nevertheless be comparable with respect to values that contribute to V-ness.

1 a par with B, and B on a par with C, then it does not follow that A is on a par 41
 2 with C). So parity differs from equality in that only the former is irreflexive and 42
 3 non-transitive. It differs from incomparability because it is a basic relation of 43
 4 comparability, not the denial that any basic relation holds. 44

5 Parity is in one way like equality, in that it has no bias, but it is like being bet- 45
 6 ter and worse in that it has magnitude. How is this possible? Return to Mozart 46
 7 and Michelangelo. Each is characterized by very different aspects of creativity 47
 8 (the evaluative difference between them has magnitude) while both are excellent 48
 9 with respect to creative genius (the evaluative difference between them is not 49
 10 biased towards one over the other). Paradigmatic cases of parity have just these 50
 11 features. 51

12 There are other ways to model a tetrachotomy of value relations. Consider 52
 13 Adam Morton's "diamond" model of value relations (Morton, 1991). Morton is a 53
 14 trichotomist, and he wants to represent the possibility of incomparability as the 54
 15 points at the ends of the horizontal axis of a diamond shape and comparability as 55
 16 its vertical axis. We can co-opt his representation of incomparability as one of 56
 17 parity instead: while the vertical dimension of a diamond shape represents the 57
 18 relations of the usual trichotomy, the horizontal dimension represents parity, the 58
 19 possibility that the magnitude of evaluative differences need not be either biased 59
 20 or zero. There is also Wlodek Rabinowicz's supervaluational model of value rela- 60
 21 tions (Rabinowicz, 2008, 2011, 2012). According to Rabinowicz, the value of an 61
 22 item is to be understood as a function of the attitudes it is "fitting" to have 62
 23 towards the item, and value relations are understood as a function of the attitudes 63
 24 of preference, indifference, or a lack of practical attitude one is permitted to 64
 25 have.¹⁴ Parity holds when it is permissible to prefer A to B and permissible to 65
 26 prefer B to A, and *either* permissible to be indifferent and permissible to lack an 66
 27 attitude *or* just permissible to be indifferent. Finally there are supervaluational 67
 28 models of rankings according to which there are legitimate, permissible rankings 68
 29 of A and B according to the usual trichotomy of relations; parity holds when 69
 30 some permissible rankings hold that A is better, some that A is worse, and some 70
 31 that A and B are equally good (cf. Chang, 2002a). 71

32 It is easy to overlook parity because we make an unreflective assumption about 72
 33 the magnitude of evaluative differences between items. We assume that if there is 73
 34 an evaluative difference, it must be modelled by quantities – more, less or equal – 74
 35 and this assumption entails that all magnitudes must either have direction or must 75
 36 76
 37 77

38
 39 14 Rabinowicz's is the most detailed model of value relations that makes room for parity. It is worth 78
 40 noting, however, that his model depends on a substantive view of value that we might reject, namely that 79
 value is to be understood in terms of fitting practical attitudes. 80

1 be zero. But why should we think that evaluative differences are like non- 41
 2 evaluative differences in weight or length in this respect? 42
 3 Recall from our discussion of incommensurability that whether two items are 43
 4 commensurable, that is precisely cardinally comparable, can depend on whether 44
 5 the covering consideration is one that admits of measurement by units on a scale. 45
 6 Some covering values, such as the “goodness of the number of lives saved” force 46
 7 a trichotomous ranking of items related in that respect; if a greater number of 47
 8 lives are saved, the alternative is better with respect to number of lives saved; if 48
 9 the same number are saved, they are equally good. Such covering values are akin 49
 10 to covering considerations in the non-normative domain, such as length and 50
 11 weight. 51

12 Most covering values, ~~and certainly the most important ones in practical rea-~~ 52 — —
 13 ~~son,~~ are not like length and weight. If we compare two alternatives with respect 53 — —
 14 to the “goodness of lives saved”, for instance, trichotomy is not forced upon 54
 15 us. One alternative might save an adult human and a parakeet while the other 55
 16 might save a child and a colony of ants. Which is better with respect to the good- 56
 17 ness of lives saved? Perhaps the alternatives are on a par. 57

18 Thus parity can arise when the structure of V is tetrachotomous, permitting a 58
 19 fourth relation between two items with respect to V-ness. When two items have 59
 20 an unbiased, non-zero evaluative difference with respect to V-ness, like Mozart 60
 21 and Michelangelo with respect to creativity, they are on a par with respect to V- 61
 22 ness. It is the structure of creativity that explains why Mozart and Michelangelo 62
 23 can be on a par with respect to creativity. Once we see that values need not have 63
 24 the same structure as length or weight, the possibility that they have a non- 64
 25 trichotomous structure comes into view. 65

26 6. Parity and Imprecise Comparability – Taking Stock 66

27 67
 28 68
 29 69
 30 Two items are on a par with respect to some covering consideration only if they 70
 31 are comparable and one is neither better nor worse than the other, ^{and} nor are they 71 — ^
 32 equally good. They stand in a fourth basic relation beyond the standard trichot- 72
 33 omy. Typically, items on a par will be evaluatively very different with respect to 73
 34 the covering consideration but nevertheless be in the same neighbourhood of 74
 35 value with respect to that consideration. 75

36 Two items are imprecisely comparable with respect to some covering consider- 76
 37 ation just in case they are cardinally comparable (there is some magnitude of 77 — — ^ doh
 38 evaluative difference between them) and incommensurable (that magnitude can- 78 — — ^ dah
 39 not be measured by reference to a scale of units). I suggested that imprecise com- 79 — —
 40 parability is most plausible when the covering value does not have built into it a 80

scale of units on which bearers of that value can be ranked, and pointed out that most covering values are like this.

Imprecise comparability departs from the standard view in its implications for the character of normativity: cardinal rankings can be imprecise. Since imprecise comparability is neutral on the question of the structure of normativity, it is in principle compatible with trichotomy. Parity, in contrast, requires a departure from the standard view in its implications for the structure of normativity, containing that it is tetrachotomous, not trichotomous. Moreover, since precise cardinality implies trichotomy, parity also entails that the standard view is incorrect as to the character of normativity; cardinality need not be precise. Items can be cardinally comparable and incommensurable. Parity, then, departs from the standard view in both its aspects; it denies the propositions that normativity is trichotomous in structure and that its character is precise.

I suggest that we accept both parity and imprecise comparability. How could we combine the two? In particular, how should we understand the magnitudes of the differences between items in a tetrachotomous ranking if there is no underlying unit by which those magnitudes can be measured? One simple way to get non-precise cardinal information is by ranking differences. We can rank items not only with respect to V , but also with respect to the magnitude of differences between items with respect to V . A tetrachotomous ranking of the differences might determine, for example, that the difference between A and B is smaller than the difference between B and C; the difference in creativity between Mozart and Michelangelo could be less than the difference in creativity between Mozart and Talentlessi. And since such a ranking is tetrachotomous, two such differences might instead be on a par. The point here is not to provide a model of tetrachotomous cardinality but to explain how parity and imprecise comparability might combine to offer us an alternative view of normativity.¹⁵

7. Parfit's Notion of Imprecise Comparability

So far, we have understood imprecise comparability in a way that is neutral on the question of the structure of normativity. That is why imprecise comparability is compatible with parity. Let us call this the "neutral" conception, since it is compatible with both trichotomy and tetrachotomy. As we have seen, imprecise

¹⁵ I have not discussed mere ordinality, but we might model tetrachotomous ordinality as follows: imagine the trichotomous ordinal relations as occupying positions on a two-dimensional list, with equally good items occupying the same position on that list. If we expand our list to three dimensions, we can include the possibility that some items are merely ordinally on a par. Parity is distinguished from the usual trichotomy by occupying a third dimension of a ranked list.

1 comparability, neutrally understood, departs from the standard view only in the
2 way the structure of normativity is realized.

3 But we could also understand imprecise comparability, non-neutrally, and in
4 particular, trichotomously, by building ~~trichotomy~~ ^{keep a trichotomy} into its conception of the struc-
5 ture of normativity. I suspect that Parfit accepts a trichotomous conception of
6 imprecise comparability. Even if I have misinterpreted Parfit on this score, this
7 conception is worth exploring since it would appeal to anyone who thinks, as do
8 Parfit and I, that cardinally comparable items can be incommensurable, and yet,
9 unlike me but perhaps like Parfit, is reluctant to give up trichotomy ^{about} as the struc-
10 ture of normativity. I want to argue that, insofar as we understand imprecise
11 equality as ~~Parfit suggests~~ ^{seems to}, trichotomously imprecise comparability must be
12 rejected. In its place, I suggest, we should accept parity, and thus tetrachotomy
13 about structure of normativity.

14 Here is what Parfit says about imprecise comparability.
15 He first introduces the idea of "rough comparability" in *Reasons and Persons*:

16 Rough comparability is, in some cases, merely the result of ignorance. When this is true, we
17 believe that there is in principle precise or full comparability ... [Sometimes], [t]he rough compa-
18 rability is ... *intrinsic*, not the result of ignorance. Must it be true of Proust and Keats, either that
19 one was the greater writer, or that both were *exactly equally as great*? *There could not be, even in*
20 *principle, such precision*. But some poets are greater writers than some novelists, and greater by
21 more or less ... Such intrinsic rough comparability holds, I believe, ... for the goodness of certain
22 kinds of outcome. (Parfit, 1984, p. 431, emphasis added)

23 The idea of rough – now "imprecise" – comparability is further described in his
24 article for this issue of *Theoria*:

25 There can be fairly precise truths about the relative value of some things. One of two painful
26 ordeals, for example, might be twice as bad as the other, by involving pain of the same intensity
27 for twice as long ... When two painful ordeals differ greatly in both their length and their intensity,
28 there are no precise truths about whether, and by how much, one of these pains would be worse.
29 There is no scale on which we could weight the relative importance of intensity and length. Nor
30 could five minutes of ecstasy be precisely 7.6 times better than ten hours of amusement ... When
31 two things are qualitatively very different, these differences would often make it *impossible* either
32 that one of these things is better than the other by some precise amount, or that both things are
precisely equally good. (Parfit, 2016, emphasis added)¹⁶

33 Moreover:

34
35 Many people assume that, when there are truths about the relative goodness of different things,
36 these truths must be precise, though we may not know what these truths are. There is one way of

37
38 ¹⁶ Parfit's qualification that being qualitatively very different would "often" make precision impossible
39 is puzzling given his claim a few paragraphs later that precision and representation by the Linear Model
40 "couldn't be true" for qualitatively very different items. I will assume that the unqualified claim repre-
sents his actual view.

1 thinking which can make this seem the only possible view. If things of some kind can be better or
 2 worse than others, and by more or less, it may seem that the goodness of these things corresponds
 3 to their positions on some line or scale of value. On this *Linear Model*, truths about goodness
 4 must be precise because positions on a line are precise ... But when two things are qualitatively
 5 very different, that *could not be true*. So when we think about the goodness of such things, we
 6 should reject this Linear Model. (Parfit, 2016, emphasis added)

7 And:

8 Like some other important truths, these truths about imprecision can be hard to understand, not
 9 because they are complicated, but because they are so simple. When some things are better than
 10 others by precise amounts, such differences are like the distances between positions on some line,
 11 and that is a simple idea. But when some things are better than others but these differences are
 12 imprecise, the truth is even simpler. Such differences in value do *not* have the further feature that
 13 they are like distances on some line. They *are not* like such distances because they are not precise.
 14 (Parfit, 2016)

15 And:

16 When one of two things is better than the other, that is often all we need to know, since it does not
 17 matter whether this difference in value is precise. But when neither of two things is better than the
 18 other, we may need to know whether *this* relation is precise. (Parfit, 2016)

19 Finally, in conversation, Parfit sometimes explains imprecise comparability by
 20 saying that there are *six* relations all told: “*precisely better than*”, “*precisely*
 21 *worse than*”, “*precisely equally good*” – the precise version of the usual trichot-
 22 omy – and “*imprecisely better than*”, “*imprecisely worse than*”, “*imprecisely*
 23 *equally good*” – imprecise versions of the usual trichotomy.
 24 ~~Although I am not entirely sure, I suspect~~ ^{believe} that Parfit’s talk of precise and
 25 imprecise *truths* is meant to be a way of expressing truths about precise and
 26 imprecise cardinal differences between items. As he says later, “we should not
 27 assume that [truths about what is better or worse] must be able to be represented
 28 by using scales or numbers” (Parfit, 2016). I think he has in mind here truths
 29 about precise and imprecise differences. If that is right, then we can safely
 30 assume that Parfit understands imprecise comparability as cardinal comparability
 31 between items whose difference cannot be measured by reference to a scale of
 32 units. So far, so good. That is just our neutral conception of imprecise compara-
 33 bility, that is, cardinal comparability with incommensurability.

34 It appears, however, that Parfit supposes something further, namely that imprec-
 35 ise comparability is to be understood trichotomously, that is, as having as its
 36 conceptual basis the idea that only three relations could hold between any two
 37 items, either a trichotomous precise set or a trichotomous imprecise set. The evi-
 38 dence for this *is mostly* circumstantial, given by what is implied by what he
 39 *explicitly says*, such as: that the trouble with approaches to certain puzzles in nor-
 40 *mativity* is the assumption of *precision* and we need to adopt *imprecision* instead;

1 that qualitatively very different items could not admit of precision but must be 41
 2 evaluated imprecisely, where application of precise vs. imprecise relations of the 42
 3 trichotomy seems to be mutually exclusive; and that if neither of two items is bet- 43
 4 ter or worse than the other, there is only *one* other relation that could hold, and 44
 5 we may need to know of “this relation” whether it is precise. There is also what 45
 6 he does not explicitly say; for example, he does not say that the trouble with 46
 7 approaches to certain puzzles in normativity is the assumption of trichotomy; nor 47
 8 does he conclude from his discussion that, for any pair of items, there are, in 48
 9 principle, four and not three basic relations in which items might normatively 49
 10 stand with respect to each other.¹⁷ 50

11 I am going to assume that Parfit makes this further assumption and so holds a 51
 12 trichotomous conception of imprecise comparability. According to this concep- 52
 13 tion, the relations of imprecise comparability are derived from or based on the 53
 14 standard trichotomy of relations, “better than”, “worse than” and “equally good”. 54
 15 The imprecise trichotomous relations are derived from the usual trichotomy by 55
 16 adding the constraint that the evaluative differences between trichotomously 56
 17 ranked items cannot be measured ^{on} by reference to a scale of units, while the pre- 57 — e
 18 cise trichotomous relations are derived from the usual trichotomy by adding the 58
 19 constraint that the evaluative differences they describe can be measured ^{on such} by a scale. 59 — A.
 20 ~~of units of value.~~ 60 — e

21 But there is a difficulty. Whatever constraint needs to be added ~~or operation~~ 61 — e
 22 ~~performed~~ to get us from “better than” and “worse than” to “imprecisely better 62 — e
 23 than” and “imprecisely worse than”, respectively, is *not* the same constraint ~~or~~ 63
 24 ~~operation~~ that will get us from “equally good” to “imprecisely equally good”. 64 — e
 25 This is because “imprecisely better than” and “imprecisely worse than” are both 65
 26 species of “better than” and “worse than”, respectively, but “imprecisely equally 66
 27 good” is *not* a species of “equally good”. While imprecise betterness and imprec- 67
 28 ise worseness can be derived in this way from the usual trichotomy, imprecise 68
 29 equality cannot. 69

30 To see this, note that while “equally good” is reflexive and transitive, “impre- 70
 31 cisely equally good”, as Parfit tells us, is non-transitive (and presumably non- 71
 32 reflexive). As Parfit writes, “two things are imprecisely equally good if it is true 72
 33 that, though neither thing is better than the other, there could be some third thing 73
 34 which was better or worse than one of these things, though *not* better or worse 74
 35 than the other” (Parfit, 2016).¹⁸ Thus ~~imprecise equality is non-transitive~~. A can 75 [AQ7] — e
 36 76
 37 77

38 17 It is perhaps worth noting that Parfit appears to be a trichotomist about practical reasons and about 78
 39 the conclusions of Practical Reason. See Parfit (2011). 79

40 18 We should add the assumption of comparability here, otherwise “imprecisely equal” will also 80
 include the cases of incomparability, or we should change the “if” to “only if”.

be imprecisely equal to B, and B imprecisely equal to C, and yet A could be worse than C and not imprecisely equal to it.¹⁹ In short, imprecision in the evaluation of one item as better or worse than another is one thing, but imprecision in evaluating them as equally good is quite another.

Since imprecise equality is not a form of equality but rather appears to be a distinct relation beyond the standard trichotomy, it is a mistake to understand trichotomy as providing the conceptual basis for imprecise comparability. The fundamental problem with the trichotomous conception of imprecise comparability is that it mistakenly supposes that the relation between “imprecisely better” and “better” (and between “imprecisely worse” and “worse”) is the same as the relation between “imprecisely equal” and “equal”. This assumption is false. But without it, we cannot understand imprecise comparability trichotomously, that is, in terms of the usual trichotomy of relations.

There are other possible interpretations of imprecise comparability that maintain trichotomy, but of a non-standard sort. It might be suggested, as Parfit himself sometimes seems to, that imprecise comparability has as its conceptual foundation the trichotomy of *precise* relations. On this view, the imprecise relations might be derived from the precise ones by “fuzzing up” the evaluative differences between precisely comparable items (cf. Hsieh, 2005). Imprecise comparability would just be precise comparability with each precise relation swapped out for its imprecise counterpart. This suggestion, however, suffers from the same problem as above: the relation between precise betterness and imprecise betterness is not the same as the relation between precise equality and imprecise equality. By “fuzzing up” equality, we change the formal properties of the relation so that we no longer have a species of equality. Imprecise equality, insofar as it is an irreflexive and non-transitive relation, is not the imprecise counterpart of precise equality, which is reflexive and transitive. We cannot simply replace precise equality with imprecise equality because imprecise equality is not a form of precise equality. Moreover, the precise trichotomy is not properly regarded as basic; rather, it is a species of the standard trichotomy of relations “neutrally” conceived.

Another possible interpretation might hold that imprecise comparability is derived from the trichotomy of relations “better than”, “worse than” and “loosely equivalent to”. “Loosely equivalent to” is to be understood as the disjunction of precise equality and imprecise equality. We could then derive imprecise equality

¹⁹ Moreover, imprecise equality entails that “not better than” and “not worse than” are non-transitive, while the standard relations and imprecise versions of “better than” and “worse than” do not. It could be true that A is not worse than B which is not worse than C and yet A is not worse than C because they are imprecisely equally good. This feature becomes relevant in our discussion of Parfit’s solution to the Repugnant Conclusion problem at the end of the article.

1 from one of a trichotomy of relations. But now we are ^{allowing} letting a fetish for trichot- 41 - e 1
 2 omy overrun plausibility about how to understand the ordinary notion of equality. 42
 3 Should we really understand it in terms of the gerrymandered relation "loosely 43
 4 equivalent to"? 44

5 ~~The upshot is that~~ there seems to be no plausible trichotomous basis from 45 - e =
 6 which we can derive Parfit's relations of "imprecisely better", "imprecisely worse" 46
 7 and "imprecisely equally good". Although it appears that Parfit assumes that his 47
 8 trichotomy of imprecise relations can be derived from the usual trichotomy 48
 9 (or perhaps from the precise set), we see that such an assumption would be a mis- 49
 10 take. Imprecise equality cannot be derived from the standard trichotomy as can 50
 11 ~~be~~ the other imprecise relations because imprecise equality is not a form of 51 - e
 12 equality. 52

13 We are left with a striking conclusion. If we accept imprecise comparability as 53 ^{italicize}
 14 a view about comparability that includes imprecise equality, we must give up the ^{this sentence}
 15 standard trichotomous view about the structure of normativity. Any appearance to 54
 16 the contrary turns on the mistaken idea that the imprecision in imprecise better- 55
 17 ness is the same as the imprecision in imprecise equality. Once we recognize that 56
 18 imprecise equality cannot have the standard trichotomy as its basis, we are natu- 57
 19 rally led to the thought that imprecise equality represents a fourth, *sui generis* 58
 20 relation beyond those of the standard trichotomy. We might, so as not to con- 59
 21 found it with equality, call it "parity". In this way, from Parfit's trichotomous con- 60
 22 ception of imprecise comparability, we are led to parity, and thus to tetrachotomy 61
 23 about the structure of normativity. 62
 24 63

25 There is another route from imprecise equality and imprecise comparability to 64
 26 parity and tetrachotomy. Recall that Parfit suggests that qualitatively very differ- 65
 27 ent items can stand in any of the three imprecise relations but cannot be *precisely* 66
 28 equally good: "...when two things are qualitatively very different, that [they are 67
 29 precisely equally good] *could not be true*" (Parfit, 2016).²⁰ 68 [AQS]

29 But we might ask, could qualitatively very different items be equally good – 69
 30 not precisely or imprecisely, but just plain old equally good? Parfit overlooks this 70
 31 question because, I suspect, he thinks that equality must be either precise or 71
 32 imprecise. He thinks that qualitatively very different items cannot be precisely 72
 33 73

34 20 A clarification. It might be supposed that by "qualitatively very different" Parfit means items that 74
 35 are *intrinsically* qualitatively very different. But intrinsically qualitatively very different items *could* be 75
 36 precisely comparable, depending on the covering consideration in terms of which they are being ranked. 76
 37 An act that saves a human life is intrinsically very different from an act that saves a colony of ants, but 77
 38 the latter can be precisely better than the former with respect to the value of saving the greatest *number* 78
 39 of lives, a covering value that counts each life as equally valuable. Indeed, it might be 2.64 million times 79
 40 better. In the same way, an act that saves 1 human life can be precisely equally good as an act that saves 80
 1 ant life, with respect to the goodness of number of lives saved. We should thus understand "qualita-
 tively very different" as relative to a V.

1 equally good because there is no scale of units by which the differences between 41
 2 those items can be measured. But the ordinary notion of being equally good does 42
 3 not have built into it the idea that items can be equally good only if there is some 43
 4 such scale of units.²¹ Indeed, the conceptual truth that an item and itself are 44
 5 equally good makes no appeal to a scale of units on which the two measure 45
 6 equally. The same goes for substantive claims about duplicates. 46

7 ~~I think that~~ qualitatively very different items can be equally good. Suppose you 47
 8 enjoy your afternoon cup of coffee with a splash of whiskey. With respect to 48
 9 enjoyment, the spiked coffee and its duplicate are equally enjoyable. Now take a 49
 10 cup of coffee that is identical in its non-evaluative properties except that the 50
 11 splash of whiskey has been replaced with a dollop of chocolate essence. Could 51
 12 the coffee-with-whiskey and the coffee-with-chocolate be equally enjoyable? By 52
 13 hypothesis, the drinks are qualitatively very different with respect to enjoyment – 53
 14 the coffee-with-whiskey gives you a sharp, peaty kick in the pants, while the 54
 15 coffee-with-chocolate gives you a mellow and comforting buzz. Could they be 55
 16 equally enjoyable? Or is it, as Parfit seems to suggest, *impossible* that you enjoy 56
 17 them equally? 57

18 I have appealed to considerations like these in what I have called the Small 58
 19 Improvement Argument. That argument begins with two items, neither of which 59
 20 is, by hypothesis, better than the other with respect to V. It then suggests that a 60
 21 small improvement with respect to V in one of the items does not necessarily 61
 22 make the improved item better than the other with respect to V. When discussing 62
 23 that argument, I was careful not to claim that a small improvement in V-ness in 63
 24 one of the items *could* not make the improved item better than the other with 64
 25 respect to V, only that it *need* not. Here we want to allow for the possibility that 65
 26 the coffee-with-whiskey could be neither better nor worse than the coffee-with- 66
 27 chocolate with respect to enjoyment, and that there is *no* improvement in the 67
 28 enjoyability of one of them that would fail to make it more enjoyable than the 68
 29 other. Is this plausible? One way it could be plausible is if the covering value, 69
 30 enjoyment, does not admit of fine-grained rankings. If enjoyment is a crude affair, 70
 31 any improvement in the enjoyability of one drink might necessarily make it more 71
 32 enjoyable than the other. At the same time, it could be that coffee-with-extra- 72
 33 whiskey is imprecisely better than both the original coffee-with-whiskey and the 73
 34 coffee-with-chocolate, and that each of these is imprecisely equally enjoyable as a 74
 35 coffee-with-espresso-shot. I do not see any reason to rule out the possibility of 75
 36 76

37 21 It might be thought that equality permits measurement by a unit in a degenerate sense since it main- 77
 38 tains that there is “no” difference between equally good items with respect to V, and one can arbitrarily 78
 39 jimmy up a scale of V for which the difference between equally good items is “zero”. But this is to mis- 79
 40 understand the idea of a scale of value, which is not generated by taking the evaluative difference 80
 between two items and then stipulating it as the unit of measure of the scale. See also n. 4.

1 covering values that have such features. We should allow that some covering 41
 2 values might be structured to allow all four relations to hold of qualitatively very 42
 3 different items. 43

4 This possibility is not restricted to cases of trivial importance. Consider the 44
 5 justice of a particular government policy. It is a conceptual truth that the policy 45
 6 and itself are equally just. Now remove some aspect of the equality it 46
 7 would achieve and substitute instead an increase in well-being for some number 47
 8 of people. Is it *impossible* that two such policies are equally just? Could there be 48
 9 no tradeoff between equality and well-being that would render the policies 49
 10 equally just? At the same time, could it be true that some policies are better or 50
 11 worse than others, but nevertheless imprecisely so? Finally, why not think that 51
 12 two qualitatively very different policies might be what Parfit calls imprecisely 52
 13 equal? I believe that there are no good grounds for ruling out these possibilities, 53
 14 and thus that we should allow that qualitatively different items could be 54
 15 equally good. 55

16 If qualitatively very different items *can* be equally good, and if, as Parfit main- 56
 17 tains, they can also stand in any of the relations “imprecisely better”, “imprecisely 57
 18 worse” or “imprecisely equally good”, then we have four and not simply three 58
 19 relations that could hold between qualitatively very different items. Since imprec- 59
 20 ise equality is not a form of equality, we might then say that there are four rela- 60
 21 tions that could hold between qualitatively very different items: “better than”, 61
 22 “worse than”, “equally good” and “on a par”. Once again, we are led to abandon 62
 23 trichotomy in favour of parity and tetrachotomy. 63

24 With respect to the structure of normativity, I suggest that we adopt parity and 64
 25 therefore tetrachotomy. With respect to the cardinal character of normativity, I 65
 26 suggest that we adopt imprecise comparability, neutrally conceived. Between any 66
 27 two items, then, there are four basic relations that could hold: “better than”, 67
 28 “worse than”, “equally good” and “on a par”. And the evaluative differences 68
 29 between cardinally comparable items can be incommensurable: when any tetra- 69
 30 chotomous ranking includes information about the magnitude of the differences 70
 31 between items, those differences may not be measurable by a scale of units of 71
 32 value. 72

33 8. How to Avoid the Repugnant Conclusion 73

34 74
 35 75
 36 I want to end by considering how a trichotomous conception of imprecise 76
 37 comparability, on the one hand, and parity and a neutral conception of imprecise 77
 38 comparability, on the other, respectively underwrite competing solutions to one of 78
 39 the central problems in population ethics, how to avoid the Repugnant 79
 40 Conclusion. 80

1 In his article for this issue of *Theoria*, Parfit proposes a solution to this prob- 41
 2 lem. I believe that he arrives at his solution in part because he holds a trichoto- 42
 3 mous conception of imprecise comparability. I want to offer a genetic story of 43
 4 how someone who is a trichotomist and yet is attracted to imprecise comparabil- 44
 5 ity might naturally arrive at Parfit's solution, raise a question about Parfit's solu- 45
 6 tion, and then suggest how a proponent of parity might naturally arrive at an 46
 7 alternative solution. The connection I want to suggest between imprecise compa- 47
 8 rability and Parfit's solution, and between parity and the alternative solution, is 48
 9 not inferential but something looser: if you hold such-and-such view about com- 49
 10 parability, you might naturally be attracted to such-and-such view about the 50
 11 Repugnant Conclusion. 51

12 Recall that the problem posed by the Repugnant Conclusion involves a contin- 52
 13 uum of possible outcomes in which each successive outcome involves a slight 53
 14 decrease in the well-being of its people but a very large increase – perhaps a dou- 54
 15 bling – of the number of people leading lives at that level of well-being.²² The 55
 16 problem is that if each successive outcome is better with respect to “goodness as 56
 17 an outcome” than its predecessor, as it seems it is, and if “better than with respect 57
 18 to goodness as an outcome” is transitive, we are forced to the repugnant conclu- 58
 19 sion that a world at the end of the continuum, Z, in which there are vast numbers 59
 20 of people whose lives are barely worth living, is better than a world at the begin- 60
 21 ning of the continuum, A, in which there is a smaller but still significant number 61
 22 of people all leading excellent lives. An illustration is given in Figure 2. 62

23 Now, how might someone who accepts the standard view approach a solution 63
 24 to this problem? She might start by accepting two seemingly innocuous theses: 64

25 *Trichotomy*: There are only three basic relations that can hold between outcomes on the continuum 65
 26 – “better than”, “worse than” and “equally good”. 66

27 *Uniformity*: Like cases must be treated alike unless there is a qualitative difference that makes a 67
 28 difference. 68

29
 30 Given these theses, the only way to block the conclusion that Z is better than 69
 31 A is to impose a break in the continuum of items, each of which is otherwise bet- 70
 32 ter than its predecessor, and which, by the transitivity of better than, would there- 71
 33 fore be better than A. The outcome that breaks the continuum would be one in 72
 34 which its successor is *not* better. And for such a break to be plausible, it might 73
 35 seem, the outcome that constitutes the break must be *qualitatively* different from 74
 36 its predecessors and successors so that, by Uniformity, it is not to be treated like 75
 37 any other outcome on the continuum. 76

38
 39 ²² I restrict my attention to the Continuum Argument, and I abstract away from various issues that 78
 40 could be raised about it, in order to focus on what I take to be the core issue relevant to Parfit's proposed 79
 solution. 80

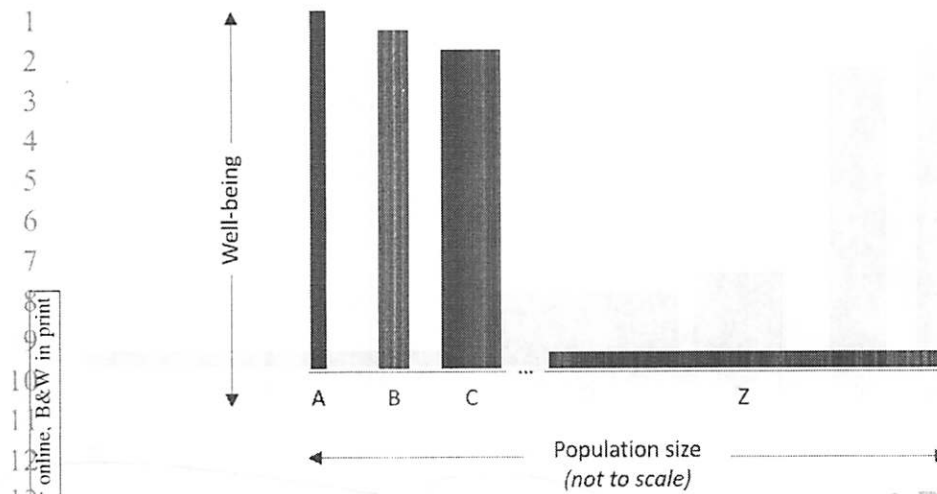


Fig. 2. xxxxxxxxx

One natural way to understand the break is as a point of lexical superiority, that is, as a point at which all successive outcomes are *worse* than the lexically better one. So, as we decrease the well-being of people in successive outcomes, there will be a point, say outcome P, at which outcomes successive to P are *worse* than P. The level of well-being (or quality of life) at P marks a qualitative lexical threshold so that any dip in quality of well-being in a successive outcome, no matter how small, makes that outcome *worse*, no matter how large the increase in the number of people living lives at this slightly lesser level. Thus while P is better than O, the outcomes Q, R, S, T ... Z are all worse than P since P is lexically better than all its successors. Since Z is worse than P, we are not forced to conclude that Z is better than A since the chain of successively better outcomes on the continuum has been broken. The slide to the Repugnant Conclusion is halted. Call this the Lexical View.

The Lexical View is diagrammed in Figure 3, with the vertical line marking the break at which there is lexical superiority.

This is a tidy solution, but many have thought that the idea of lexical superiority cannot be defended.

At the heart of the Lexical View is what we might call the Lexical Claim:

The Lexical Claim: There is an outcome with some number of people living at well-being level, L , such that any outcome with any, even an infinite, number of people living at a slightly worse level, L_- , would be worse.

Many have doubted that the Lexical Claim could be true. It is hard to believe that there could not be some large enough number of people living at a level only slightly lower than L that is not worse.

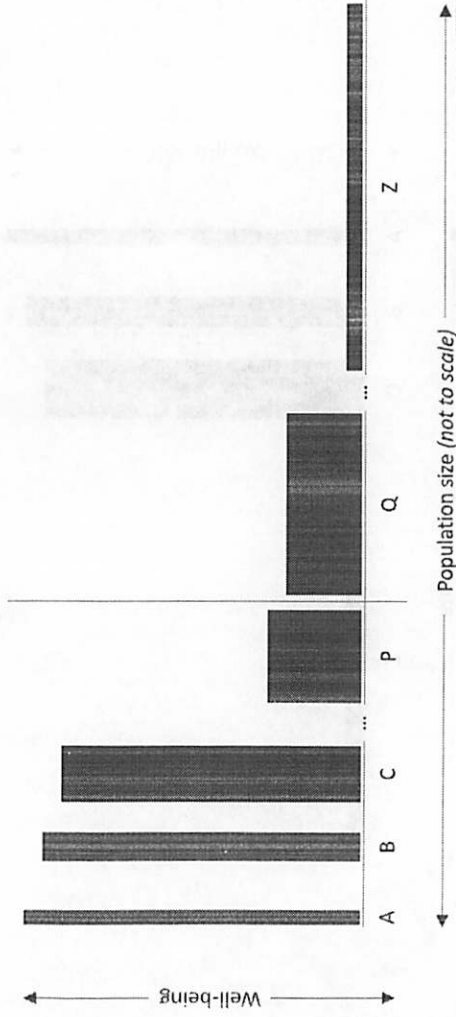


Fig. 3. xxxxxxxx

The Lexical View assumes that if P is lexically better than its successors, then it follows that those successors must be *worse*. As Parfit says, the Lexical View assumes precision and therefore trichotomy. If P is lexically better than Q, it is precisely better; there is some scale of units of goodness as an outcome, and P has more units than Q. Since Q has fewer units it must be worse. The problem with lexicality is that it entails that every successor of P must be worse than P. But this does not seem plausible.

Parfit ingeniously suggests that we can defend the spirit of the Lexical View by understanding it in an *imprecise* form. He proposes what he calls the “Imprecise Lexical View”. According to this view, P is imprecisely lexically better than its successor outcomes. This entails not that all successive outcomes are worse than P but only that they are *not better* than P. If successive outcomes are not better than P, this might be because they are *imprecisely equal* to P or because they are worse than P. The Imprecise Lexical View thus allows that there could be some large enough number of people at a slightly lower level of well-being that is not worse than an imprecisely lexically superior outcome. So perhaps P, Q, R and S are all imprecisely equally good. But when we get to T, we have an outcome that is worse than Q. This would all be compatible with the claim that P is imprecisely lexically superior to its successors.

At the heart of the Imprecise Lexical View is the Imprecise Lexical Claim:

The Imprecise Lexical Claim: There is an outcome with some number of people living at well-being level, L, such that no outcome with any, even an infinite, number of people living at a slightly worse level, L−, would be better.

This claim allows the Imprecise Lexical View to sidestep the main worry about the Lexical View, namely that it is implausible to suppose that every successor

1 outcome to P is *worse* than P. Instead, some of those successors might merely be 41
 2 imprecisely equally good as P. But further down the continuum, when the quality 42
 3 of well-being is significantly lower, we are free to say that those outcomes are 43
 4 worse than P. Since Z is worse than P, we are not forced to conclude that Z is 44
 5 better than A, since the chain of successively better outcomes on the continuum 45
 6 has been broken. The slide to the Repugnant Conclusion is once again halted, this 46
 7 time, without having to assume the implausible Lexical Claim. 47

8 We can now see what the genetic connection between Parfit's trichotomous 48
 9 conception of imprecise comparability and his solution to the Repugnant Conclu- 49
 10 sion problem might be. As background to presenting Parfit's solution, I began 50
 11 with the Lexical View, which assumes precision and the standard trichotomy. 51
 12 I described the main difficulty with the view. Parfit's Imprecise Lexical View is ^{was} 52
 13 then presented as a way of saving the spirit of the lexical solution. This way of 53
 14 proceeding was not accidental; it is how Parfit *himself* presents his view: imprecise 54
 15 lexibility, as Parfit appears to conceive of it, is a *fix* of the Lexical View. 55

16 So we might tell the genetic story of Parfit's solution like this: Parfit, assuming 56
 17 trichotomy, finds the Lexical View a *prima facie* attractive way to avoid the 57
 18 Repugnant Conclusion. But he is aware that the central claim of the Lexical View 58
 19 is hard to believe. Parfit then notes that this claim is hard to believe because the 59
 20 Lexical View assumes precision, i.e., that there is a unit by which one outcome is 60
 21 better or worse than another. If we abandon precision, we are led to the Imprecise 61
 22 Lexical View as a way to preserve lexibility without having to defend the implau- 62
 23 sible Lexical Claim, accepting instead the more plausible Imprecise Lexical 63
 24 Claim. It is because Parfit initially assumes trichotomy in thinking about imprecise 64
 25 sion that he conceives of imprecision as a way to fix the Lexical View, and that 65
 26 leads him, in turn, to adopt an imprecise form of lexibility as the solution to the 66
 27 problem. If that is right, it is Parfit's trichotomous conception of imprecise com- 67
 28 parability that leads him to accept the Imprecise Lexical View. 68

29 A question we might ask about Parfit's solution is: Is lexibility – whether pre- 69
 30 cise or imprecise – needed to avoid the Repugnant Conclusion? In avoiding the 70
 31 Repugnant Conclusion, must we always assume that, on any such continuum, 71
 32 there is *always* some P that designates a level of well-being such that no number 72
 33 of people with a slightly lower level of well-being could be better? That seems 73
 34 too strong an assumption to require if we are to avoid *any* continuum to *any* 74
 35 Repugnant Conclusion. The appeal to lexibility seems to be a remnant of a pre- 75
 36 cise, trichotomous approach to the problem. From our arguments above, it seems 76
 37 that Parfit does not go far enough in rejecting such approaches; while he rejects 77
 38 precision, he should, as I have argued, also reject trichotomy. 78

39 If we reject trichotomy and accept parity and tetrachotomy, a related but differ- 79
 40 ent solution to the Repugnant Conclusion problem naturally arises. Instead of 80

1 thinking that there is always some quality of life that no number of lives of a 41
 2 lower quality could outweigh, we can allow that, on some continua at least, there 42
 3 will be no such lexical quality of life. We can still avoid the Repugnant 43
 4 Conclusion, however, if instead we maintain that at some – perhaps indeterminate 44
 5 – point along any continuum with a sufficiently repugnant conclusion at its termi- 45
 6 nus, there will be an outcome which, instead of being better than its predecessor, 46
 7 is on a par with it. If there is such a point of parity, the chain of betterness is 47
 8 broken, and the slide to the Repugnant Conclusion is halted. 48

9 Thus parity naturally gives rise to a solution to the problem that does not 49
 10 require lexicality. The parity solution maintains the Uniformity but rejects Tri- 50
 11 chotomy. It holds that, somewhere along the continuum, there will be a qualitative 51
 12 difference that makes a difference in how the item should be treated. As we go 52
 13 along the continuum, each successor is better than its predecessor. But there will 53
 14 be some point of qualitative difference such that the successor is no longer better 54
 15 than its predecessor but on a par with it. And, indeed, intuitively, that is what 55
 16 happens on such continua. There is a qualitative change along the continuum, but 56
 17 we do not have to understand it as a point of lexicality. Instead, it is a point at 57
 18 which the pair of items are qualitatively different but nevertheless are in the same 58
 19 neighbourhood of value.²³ That is enough to stop the slide to the Repugnant 59
 20 Conclusion.²⁴ 60

9. Summary 62

23 We have now seen the main similarities and differences between imprecise com- 64
 24 parability and parity. The former, neutrally understood, entails that normativity 65
 25 has a non-standard character, that is, that cardinally comparable items may be 66
 26 incommensurable; while the latter entails a non-standard view of the very struc- 67
 27 ture of normativity, that is, of the basic normative relations that can hold between 68
 28 items. 69

30 Imprecise comparability can be understood in terms of the more familiar 70
 31 notions of cardinality and incommensurability: two items are imprecisely compa- 71
 32 rable with respect to V if they are cardinally comparable and yet incommensura- 72
 33 ble with respect to V – there is no scale of units by which their relevant V-ness 73
 34 74

35 23 Like Parfit, I want to allow that the transition to the point of qualitative difference can be gradual 75
 36 through points of indeterminacy. Thus as we approach the point at which pairs are on a par, the right 76
 37 thing to say about preceding pairs might be that it is indeterminate whether the successor is better or 77
 38 whether they are on a par. 78

39 24 I believe that parity (and attentiveness to the individuation of covering values) also solves putative 79
 40 difficulties raised by related continuum arguments, such as those thought to support the non-transitivity 80
 of “better than”. See, e.g., Rachels (1998) and Temkin (2012).

can be measured. Parity, in contrast, is a relation that represents a further basic normative relation which can hold between items, not simply a way in which items can be trichotomously related. While imprecise comparability departs from the standard view in character, parity departs from the standard view both in character and in structure.

Whether parity is possible, we argued, turns on pointing out that a widespread assumption about incomparability, namely, that items are incomparable if they are not trichotomously related, is just that, an assumption, and that it is no part of the ordinary notion of incomparability. We offered a simple model of parity in terms of evaluative differences and discussed how parity differs from equality, incomparability and imprecise equality.

We then turned to Parfit's notion of imprecise comparability, which, we suggested, is not neutral on the question of trichotomy but rather presupposes it. According to this trichotomous conception, the imprecision in "imprecisely better than" and "imprecisely worse than" is the same as it is in "imprecisely equally good". We argued, however, that this is not so: that while the former are, respectively, species of "better than" and "worse than", the latter is not a species of "equally good". Imprecise equality has distinctive formal features that suggest we should understand it as a *sui generis* fourth basic way items can normatively relate. We concluded that proponents of imprecise equality should reject trichotomy and accept parity and tetrachotomy. We also suggested another path to parity from Parfit's claims about how qualitatively very different items can be compared. That argument turned on showing that it was possible for qualitatively very different items to be equally good.

Finally, we examined Parfit's proposed solution to the problem posed by the Repugnant Conclusion. We suggested that Parfit's solution, which relies on lexicality, is born of an implicit commitment to trichotomy. We suggested that parity could offer a similar but more flexible solution that rejected lexicality and trichotomy.

Acknowledgements

Thanks to the Princeton UCHV for funding support and to an audience at the Princeton Normative Philosophy Workshop for questions. I am also grateful to Laura Callahan for creating the figures included in this article, to Kit Fine for comments on an eleventh-hour draft, and to the editors of this volume for inviting me to contribute to this celebration of Parfit's work. My greatest thanks go to Parfit himself for being an inspiration and mentor to me all these years. Because the paper I presented at the Schock Conference, "Ways of Mattering", seemed a poorer fit with the themes of population ethics that were dominant at the

conference, I decided to write this article instead for the conference proceedings. Regrettably, I did not have the opportunity to get Parfit's comments on a draft of this article before it went to print. All interpretative and other errors are my own.

References

- ANDERSON, E. (1993) *Value in Ethics and Economics*. Cambridge, MA: Harvard University Press.
- ANDREOU, C. (2015) "Parity, Comparability, and Choice." *Journal of Philosophy* 62: 5–22.
- ARISTOTLE (1999) *Nicomachean Ethics* (second edition), trans. T. Irwin. Indianapolis: Hackett.
- BROOME, J. (1991) *Weighing Goods*. Oxford: Blackwell.
- CARLSON, E. (2010) "Parity DeMystified." *Theoria* 76: 119–128.
- CHANG, R. (1997) "Introduction." In R. Chang (ed.), *Incommensurability, Incomparability and Practical Reason*, pp. 1–34. Cambridge, MA: Harvard University Press.
- CHANG, R. (2002a) *Making Comparisons Count*. Studies in Ethics, series ed. R. Nozick. New York: Routledge.
- CHANG, R. (2002b) "The Possibility of Parity." *Ethics* 112: 659–688.
- CHANG, R. (2004a) "All Things Considered." *Philosophical Perspectives* 18: 1–22.
- CHANG, R. (2004b) "Putting Together Morality and Well-Being." In M. Betzler and P. Baumann (eds), *Practical Conflicts*, pp. 118–158. Cambridge: Cambridge University Press.
- CHANG, R. (2005) "Parity, Interval Value, and Choice." *Ethics* 114: 331–350.
- CHANG, R. (2009) "Voluntarist Reasons and the Sources of Normativity." In D. Sobel and S. Wall, *Reasons for Action*, pp. 243–271. New York: Cambridge University Press.
- CHANG, R. (2012) "Are Hard Choices Cases of Incomparability?" *Philosophical Issues* 22(1): 106–126.
- CHANG, R. (2013a) "Grounding Practical Normativity: Going Hybrid." *Philosophical Studies* 164(1): 163–187.
- CHANG, R. (2013b) "Commitments, Reasons, and the Will." In R. Shafer-Landau (ed.), *Oxford Studies in Metaethics*, Vol. 8, pp. 74–113. Oxford: Oxford University Press.
- CHANG, R. (2015) "Comparativism: The Grounds of Rational Choice." In B. McGuire and E. Lord, *Weighing Reasons*. Oxford: Oxford University Press.
- GERT, J. (2004) "Value and Parity." *Ethics* 114: 492–510.
- GRIFFIN, J. (1986) *Well-Being: Its Meaning and Measurement*. Oxford: Oxford University Press.
- HEATH, T. (1921) *A History of Greek Mathematics*. Oxford: Clarendon Press.
- HSIEH, N. (2005) "Equality, Clumpiness and Incomparability." *Utilitas* 17(2): 180–204.
- HURKA, T. (1993) *Perfectionism*. Oxford: Oxford University Press.
- LAIRD, J. (1935) *An Enquiry into Moral Notions*. London: George Allen & Unwin.
- LUKES, S. (1997) "Comparing the Incomparable: Trade-offs and Sacrifices." In R. Chang (ed.), *Incommensurability, Incomparability, and Practical Reason*, pp. 184–195. Cambridge, MA: Harvard University Press.
- MORTON, A. (1991) *Disasters and Dilemmas*. Oxford: Blackwell.
- NUSSBAUM, M. (1990) *Love's Knowledge*. Oxford: Oxford University Press.
- NUSSBAUM, M. (1986) *The Fragility of Goodness*. Cambridge: Cambridge University Press.

- 1 PARFIT, D. (1984) *Reasons and Persons*. Oxford: Oxford University Press. 41
- 2 PARFIT, D. (2011) *On What Matters*, Vols. I and II. Oxford: Oxford University Press. 42
- 3 PARFIT, D. (2016) "Can We Avoid the Repugnant Conclusion?" *Theoria*. 43 ^{AQ9}
- 4 RABINOWICZ, W. (2008) "Value Relations." *Theoria* 74: 18–49. 44
- 5 RABINOWICZ, W. (2011) "Value Relations: Old Wine in New Barrels." In A. Reboul (ed.), 45
Philosophical Papers dedicated to Kevin Mulligan, www.philosophie.ch/kevin/festschrift/. 46
- 6 47
- 7 RABINOWICZ, W. (2012) "Value Relations Revisited." *Economics and Philosophy* 28: 48
133–164. 49
- 8 RACHELS, S. (1998) "Counterexamples to the Transitivity of 'Better Than'." *Australasian* 50
9 *Journal of Philosophy* 76(1): 71–83. 51
- 10 RADIN, M. (1987) "Market Inalienability." *Harvard Law Review* 100: 1849–1937. 52
- 11 RAZ, J. (1986) *The Morality of Freedom*. Oxford: Clarendon Press. 53
- 12 SUNSTEIN, C. (1997) "Incommensurability and Kinds of Valuation: Some Applications in 54
13 Law". In R. Chang (ed.), *Incommensurability, Incomparability, and Practical Reason*, 55
14 pp. 234–254. Cambridge, MA: Harvard University Press. 56
- 15 TEMKIN, L. (2012) *Rethinking the Good: Moral Ideals and the Nature of Practical Reasoning*. 57
16 Oxford: Oxford University Press. 58
- 17 59
- 18 60
- 19 61
- 20 62
- 21 63
- 22 64
- 23 65
- 24 66
- 25 67
- 26 68
- 27 69
- 28 70
- 29 71
- 30 72
- 31 73
- 32 74
- 33 75
- 34 76
- 35 77
- 36 78
- 37 79
- 38 80
- 39
- 40

QUERIES TO BE ANSWERED BY AUTHOR

IMPORTANT NOTE: Please mark your corrections and answers to these queries directly onto the proof at the relevant place. **DO NOT** mark your corrections on this query sheet.

Queries from the Copyeditor:

- AQ1. Au: Please provide a suitable legend for Figure 1,2,3.
- AQ2. PRODUCTION EDITOR: Page no. to be added at proof stage
- AQ3. PRODUCTION EDITOR: Page no. to be added at proof stage
- AQ4. PRODUCTION EDITOR: Page no. to be added at proof stage
- AQ5. PRODUCTION EDITOR: Page no. to be added at proof stage
- AQ6. PRODUCTION EDITOR: Page no. to be added at proof stage
- AQ7. PRODUCTION EDITOR: Page no. to be added at proof stage
- AQ8. PRODUCTION EDITOR: Page no. to be added at proof stage
- AQ9. PRODUCTION EDITOR: To be updated at proof stage
- AQ10. Please confirm that given names (red) and surnames/family names (green) have been identified correctly.

/ I didn't understand this request. What is a legend?