Frank R. 1999. Social norms as positional arms control agreements. In *Economics, Values and Organization*, ed. A. Ben-Ner and L. Putterman, 275–295. New York, NY: Cambridge University Press.

Gilabert P. 2023. Human Dignity and Social Justice. New York, NY: Oxford University Press.

Otteson J. 2014. The End of Socialism. New York, NY: Cambridge University Press.

Ronzoni M. 2012. Life is not a camping trip: on the desirability of Cohenite socialism. *Politics, Philosophy & Economics* 11, 171–185.

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*Value Incommensurability: Ethics, Risk, and Decision-Making*, Henrik Andersson and Anders Herlitz (ed.). Routledge, 2022, viii+269 pages. doi:10.1017/S0266267123000299

This book is a collection of fourteen papers by various authors on the concept of value incommensurability. As becomes apparent throughout the book, a precise definition of this concept is elusive. Several terms are used in the philosophical literature for similar phenomena: 'incommensurability', 'incommensurateness', 'incomparability', 'discontinuity', 'ambivalence'. But the basic idea is that two things are incommensurable in value if they cannot be compared in terms of the 'standard' value relations. One thing is neither better nor worse than the other, nor are the two things equally good. The papers in the book are divided into four parts. Rather than attempting to provide comprehensive coverage of topics related to value incommensurability, in the style of a handbook, for example, the book focuses quite narrowly on a few select issues at the cutting edge of research in this area. For example, although Part II of the book is titled 'Incommensurability and Ethical Theory', all the chapters in this part discuss questions related to a particular area within ethical theory, namely, population ethics. Similarly, all the chapters in Part IV, titled 'Incommensurability, Risk, and Uncertainty', discuss the niche topic of 'opaque sweetening'. Yet there are surely many other topics in both ethics and the theory of risk and uncertainty to which value incommensurability is relevant. We observe this narrowness not as a criticism, but it is worth noting that readers hoping for more diversity may be disappointed. We note also that many of the contributions to the book constitute new moves in ongoing debates, and therefore the book may be more accessible to readers who are already familiar with these debates.

Part I focuses on the phenomenon that some choices are particularly hard and the question of whether the concept of value incommensurability is needed. John Broome (Chapter 1) argues that value incommensurability, which he calls 'incommensurateness', is nothing but vagueness, in the supervaluational sense: the property 'betterness' is a package of many sharpenings, according to some sharpenings, A is better than B; according to others, B is better; and perhaps according to some others, A and B are equal. In this way, Broome suggests, none of the three normal betterness relations determinately holds, yet none determinately does not hold either. Is it possible that neither A nor B is determinately not better than the other, and they are determinately not equal either? Broome calls this possibility 'hard incommensurateness' but suggests that we do not need it to explain any phenomenon that matters, so vagueness is all we need. For Broome, all that matters is to settle the question of which options are rationally permissible. And his answer is that in such a case, both are rationally permissible.

Ruth Chang (Chapter 2) is unsatisfied. She thinks that a fourth kind of comparative relation genuinely exists and matters, and she calls it 'parity'. Her primary rationale is that while vagueness can be resolved by 'arbitrary stipulation', e.g. coin-flipping, in some if not all 'hard choices', some 'resolution remainders' will always be left unresolved, so there must be something other than vagueness (53–54). According to Chang, such remainders are metaphysical instead of merely phenomenological. That is, they exist no matter whether agents can feel them. Chang's explanation is that parity is the result of value incommensurability: one option is better in virtue of some values while the other is better in virtue of other values, these two sets of values are incommensurable, and the two options are still in the same 'neighbourhood'. Moreover, Chang suggests that in such a situation, we can find 'a space for the exercise of active rational agency' in which normativity cannot 'dictate every aspect of rational life' (58–59). In this way, Chang connects incommensurability and human agency.

Chrisoula Andreou (Chapter 3) adopts the concept of parity and suggests that A and B can be on a par even if they are not imprecisely equal. Andreou argues that for A and B to be imprecisely equal, if another option A+ is 'considerably' better than A, it will also be better than B. Yet sometimes A+ is considerably better than A but not better than B, while A and B are still on a par (75–76). What Andreou proposes is compatible with both parity as incommensurability and '(soft) incommensurateness' as supervaluational vagueness, and what interests her is to explain the phenomenology we experience when facing such choices.

What is specifically interesting in Part I is that in this part the authors focus on the explanatory function of the concept of incommensurability, that is, whether we need this concept to explain things and, if yes, how exactly it helps. Incommensurability is introduced and revealed to us by reflecting on certain puzzling phenomena we experience when making choices that are hard to explain. Broome and Andreou are open about this and Chang, while insisting that she is doing metaphysics of values, also needs to appeal to the explanatory function of value incommensurability to show us that it is worth discussing. However, it appears that the authors have not agreed on what actually needs to be explained and thus are to an extent talking past each other. Chang and Broome, for instance, disagree on whether we need a theory to explain why it feels inappropriate, in whichever sense, to resolve a hard choice by flipping a coin. Our primitive impression is that on this matter, neither party has done enough. Now, suppose that we can agree on what value incommensurability means and is, what else can it do for us other than explaining certain phenomena? Part II considers value incommensurability in relation to two related topics in ethics: the 'Repugnant Conclusion' in population ethics, and 'spectrum arguments'. Imagine a sequence (or 'spectrum') of possible worlds. In the first world, there is a large population with very high welfare. Then in each successive world, welfare is reduced slightly while population size is increased greatly. The final world in the sequence contains a massive population with very low welfare. Intuitively, each world after the first is better than its immediate predecessor. However, assuming that 'better than' is a transitive relation, this leads to the 'repugnant' conclusion that the last world is better than the first.

One possible solution to this problem is to reject the argument for the repugnant conclusion by invoking some notion of value incommensurability: for some pair of adjacent worlds in the sequence, neither world is better than the other, nor are they equally good. Both Mozaffar Qizilbash (Chapter 4) and Gustaff Arrhenius (Chapter 6) discuss attempted solutions of this kind. Qizilbash carefully develops two versions of this solution, inspired by the work of James Griffin and Derek Parfit, respectively. Very roughly, the difference is that the former employs 'discontinuity' and vagueness, whereas the latter employs 'imprecise equality'. Qizilbash argues that the former approach is preferable. Arrhenius criticizes another solution of this kind, 'Incomplete Critical Level Utilitarianism'. He argues that, although this view avoids the conclusion that the last world in the sequence described above is better than the first, it nonetheless implies the still counterintuitive conclusion that the first is not better than the last. He argues also that this and similar views have other problematic implications, and that they cannot adequately explain the source of incommensurability. Arrhenius's findings seem to us important, if not especially surprising.

Another possible solution to the problem described above is to deny that 'better than' is transitive. Authors such as Stuart Rachels and Larry Temkin have employed similar 'spectrum arguments' to argue for the intransitivity of 'better than'. Henrik Andersson (Chapter 5) criticizes these arguments. In the cases discussed by Rachels and Temkin, the spectrum is a sequence of painful experiences, where, at each step, the intensity of pain is reduced slightly, while its duration is increased greatly. Andersson argues that one may reject a premise of the spectrum argument – that each experience after the first is worse than its immediate predecessor – if one accepts that two adjacent experiences, though very similar, may nonetheless differ in kind. Andersson sees this argument as a contribution to the project of describing the 'normative landscape' without non-conventional value relations (as defended by Broome in Chapter 1 of this volume).

Part III addresses the relationship between value incommensurability and rationality. Anders Herlitz (Chapter 7), in a comprehensive review, introduces four ways nondeterminacy can challenge rational choice theory: dynamic choice problems, underdetermination, cyclical evaluations, and violations of basic contraction consistency. He shows how different explanations of nondeterminacy give rise to different further constraints on practical reasoning. Herlitz concludes with reflections on how those constraints are derived from our phenomenology, from the practical reasons themselves, or from the norms of rationality. Different solutions sacrifice different things. Krister Bykvist (Chapter 8) makes a quite unique contribution to the debate. He defends the idea that values can be meaningfully and non-metaphorically compared cross-categorically even when those values are different and incommensurable, by introducing a novel account involving degree modifiers and polarities. His proposal, if plausible, may help us with understanding how exactly evaluating options involving incommensurable values is possible.

Luke Elson (Chapter 9) insightfully points out that in the cases of incommensurateness, we have two pieces of phenomenology pulling in opposite directions. On the one hand, one would not be wrong to choose either option. On the other hand, there is something important left untouched, and one feels the urge to do more deliberation. Figuring out what is or is not wrong to choose is what interests Broome and is about instrumental rationality. Understanding why one feels the urge to do more deliberation is what Chang is concerned with and is about human agency. Elson proposes a Humean way to accommodate both pieces of phenomenology: if reasons are Humean and desires are vague, the vagueness of desire can explain incommensurateness; and if desires are partly within the agent's control, the agent has some room to exercise their active agencies.

Part III can also be recommended for some behavioural economists and neuroeconomists and other economists who are interested in preferences and rational choice theory. Specifically, those working on issues such as intransitivity or cyclicity of preference, preference gap or completeness of preference and dynamic decision-making, etc., may be able to find some useful materials and new aspects from Chapter 7. Those working on the psychological and neurobiological mechanisms behind economic behaviours may feel Chapter 9 helpful as it talks about the vagueness of desire and how one can control one's desires.

Part IV discusses incommensurability in the context of choices under risk or uncertainty. All three chapters in this part, by Wlodek Rabinowicz, Katie Steele, and Ryan Doody, discuss issues related to a problem identified by Caspar Hare, which is sometimes called the problem of 'opaque sweetening'. As Rabinowicz notes, this may be seen as a problem either for rational choice (as in Hare's original presentation), or for 'axiology', the study of value relations. In its axiological form, the problem may be illustrated by the following abstract example. Consider four outcomes A, B, A<sup>+</sup>, B<sup>+</sup> such that A<sup>+</sup> is better than A but not better than B, and B<sup>+</sup> is better than B but not better than A. (One may think of A<sup>+</sup> and B<sup>+</sup> as small improvements, or 'sweetenings', of A and B, respectively.) Given the usual transitivity conditions, it follows that A<sup>+</sup> is incommensurable with B (that is, A<sup>+</sup> is neither better nor worse than, nor equal in value with, B), and that B<sup>+</sup> is incommensurable with A. Now consider two actions, X and Y, with uncertain outcomes. If a fair coin toss lands heads, X will result in A<sup>+</sup>, and Y will result in B; whereas if the coin lands tails, X will result in B<sup>+</sup>, and Y will result in A. Which action, X or Y, is better? As the outcomes of X are sweetened versions of those of Y, this may suggest that X is better than Y. On the other hand, it is certain that, however the coin lands, X will not have a better outcome than Y, which suggests that X is not better than Y.

Rabinowicz (Chapter 10) argues for the first answer given above, that X is better than Y. He rebuts some common arguments for the contrary view, that X is not

better than Y, before presenting positive arguments for his preferred view. To further bolster his position, Rabinowicz then applies an analysis of value, based on 'fitting attitudes', which he has developed elsewhere. On this analysis, roughly, to be valuable is to be the fitting object of a pro-attitude. Rabinowicz's innovation is that fittingness is understood in terms of normative requirements of varying strength. One may be either obligated to hold a certain pro-attitude, or merely permitted to do so. Formally, this is modelled by a set of permissible preference orderings K. For example, X is better than Y if and only if, for all preference orderings in K, X is preferred to Y. Applying this analysis to the problem introduced above, Rabinowicz finds further support for the view that X is better than Y. However, he also discovers an intriguing unresolved residual puzzle. This puzzle involves a stronger form of incommensurability, which Rabinowicz calls 'incomparability'. It seems plausible to think that if the outcomes of two actions are not merely incommensurable, but incomparable in every state, then these actions are incomparable. Yet this conflicts with another plausible principle, which Rabinowicz calls 'Switch'.

Steele (Chapter 11) discusses a related problem, which involves 'criterion-wise', rather than 'state-wise', comparisons between options. When multiple criteria are relevant to our choices, it may happen that options are incommensurable with respect to some criteria. Steele considers the principle that we should, in such cases, disregard the incommensurable criteria, and argues that, although this principle seems implicitly assumed in everyday decisions, it is not rationally defensible. The principle is precisely defined using the notion of '(criterion-wise) competitiveness'. An option X is '(criterion-wise) competitive' relative to Y if there is no criterion under which the outcome of X is worse than that of Y. Then 'Weak (Criterion-Wise) Competitiveness' holds that if X is (criterion-wise) competitive relative to all alternative options, it is rationally permissible to choose X. (Steele also defines a 'Strong' version, which, for brevity, we will not discuss here.) Steele presents a counterexample to this condition involving a choice between two climate policies, where the relevant criteria are the welfare of the current and a future generation. The agent's preferences are assumed to be represented by a set of utility functions. One option is preferred to another if and only if, for every utility function in this set, the former option has greater total utility than the latter. Two options are incommensurable if one has higher total utility relative to one utility function, but lower total utility relative to another. Steele shows that, given these assumptions, the set of utility functions may be such that Weak (Criterion-Wise) Competitiveness is violated. We find it interesting to observe that Steele's model of rational preferences bears certain similarities to Rabinowicz's model of value relations discussed in the previous chapter. Whereas the latter model involves a set of permissible preference relations, the former involves a set of eligible utility functions.

Doody (Chapter 12) discusses 'impossibility results' related to opaque sweetening. He presents four constraints on rational preferences – 'Neutrality', the 'Strict Dominance Principle', 'Sensitivity to Sweetening' and the 'Never Worse Principle' – and claims to show that these are 'jointly inconsistent' (252). So far as we can tell, this is not strictly true. There are possible preference relations which satisfy all four constraints (to take an extreme example, consider

an agent who is 'universally indifferent', that is, indifferent between all prospects). Rather, what these constraints together entail is that any rational individual who prefers both  $A^+$  to A and  $B^+$  to B, must prefer either  $A^+$  to B or  $B^+$  to A. What does seem true is that there are apparently rational preference relations which do not satisfy all four of the constraints, which suggests that these constraints are not all requirements of rationality. Doody argues that Neutrality and the Never Worse Principle are 'contentious' (253) and proceeds to offer an alternative impossibility result involving less contentious constraints. The two contentious constraints are replaced by 'Orthogonal Equipoise' and the 'Never Worse, Likely Better Principle'. There are some other changes and additions, and the new result features six constraints. We find it difficult to assess Doody's proof that these six constraints are jointly inconsistent. One of the constraints, Orthogonal Equipoise, could be more rigorously defined. And the proof appears to rely on additional assumptions beyond the stated constraints. For example, it is assumed that individuals 'value money linearly' and are 'risk-neutral' (259). One might then wonder about individuals who violate either of these assumptions. Could such individuals have preferences that satisfy all six constraints? This is unclear. We are also unconvinced that the constraints of the second impossibility result are less contentious than those of the first. For example, the second result adds 'Transitivity of Indifference', to which there are well-known counterexamples. A person may be indifferent between a cup of tea containing N grains of sugar and one containing N+1 grains of sugar, yet not indifferent between, say, zero grains of sugar and a thousand; and this does not seem irrational.

We turn now to some general observations about the whole book. As we said at the beginning, this book is focused on a list of issues on the frontiers of this research area and most chapters are of high quality. The complexity of this book reveals a problem of this research field: it is deeply divided as the authors disagree on some basic matters. Most saliently, as the editors and several authors have had to repeatedly emphasize, people disagree on whether and how 'incommensurability' and 'incommensurateness' are different, what they mean exactly, or whether to use this or that term at all. On a deeper level, some authors are interested only in the choice-theoretical problems, while others are concerned with the normative side, specifically its ethical implications. This may result in conflicting opinions on where the burden of proof lies and whether certain intuitions need to be addressed, as in the Broome-Chang exchange. Given these two problems, we tentatively think that perhaps it will be more productive if we can use 'incommensurateness' in the choice-theoretical context and use 'incommensurability' in the normative context. This may not be enough for separating the rationality side of hard choice and value incommensurability from the more agency-referring, ethics-involving side, but it can be a beginning. In any case, some kind of consensus is needed.

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