

Broome on Reasoning

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Among the many important contributions of John Broome's *Rationality Through Reasoning* is an account of what reasoning is and what makes reasoning correct. Here we raise some problems for both of these accounts and recommend an alternative approach.

1. Reasoning and Correct Reasoning

In Broome's paradigmatic example of reasoning, you say to yourself:

If it is raining the snow will melt

It is raining

So the snow will melt (2013: 216; 223)

In saying this to yourself, you express three beliefs, the third of which is caused by the first two. However, not just any process by which these first two beliefs cause the third would count as reasoning. What makes the difference?

Broome's answer is that reasoning is a kind of rule-following. In particular, it is 'a rule-governed operation on the contents of your conscious attitudes' (234).¹ What distinguishes reasoning from other processes in which some attitudes cause a further attitude is that in reasoning you follow a rule for operating on content-attitude pairs. For example, in the case described above you might follow the rule: 'From $\langle p; \text{belief} \rangle$ and $\langle \text{If } p \text{ then } q; \text{belief} \rangle$ to derive $\langle q; \text{belief} \rangle$ ' (252).

Broome also claims, as per the title of his book, that reasoning is 'a means of coming to satisfy requirements of rationality' (258; cf. also 207). This is offered not as a claim about what it *is* to reason, but as part of an account of the standards for *correct* reasoning. The basic thought behind this account is that correct reasoning can get you to be rational. For Broome, rationality is a matter of satisfying requirements such as the Modus Ponens Requirement (157), the Instrumental Requirement (159, 169), and Enkrasia (170, 171). The standards for correct reasoning, Broome suggests, are derived from such requirements.

As Broome recognizes, however, the standards of correct reasoning cannot be *directly* derived from requirements of rationality. Correct reasoning is not simply reasoning which brings you to satisfy a requirement of rationality (246-7). For instance, Enkrasia requires, very roughly, that if you believe that you ought to F , you intend to F . Suppose that you reasoned 'I am not going to F , so it is okay not to F '. This reasoning brings you to believe that it is okay not to F , which, all going well, will bring you to not believe that you ought to F , and so satisfy Enkrasia. That does not make it correct reasoning (cf. Schroeder 2004; Kolodny 2005).

¹ More fully: 'Active reasoning is a particular sort of process by which conscious premise-attitudes cause you to acquire a conclusion-attitude. The process is that you operate on the contents of your premise-attitudes following a rule, to construct the conclusion, which is the content of a new attitude of yours that you acquire in the process' (234). As Broome notes, the rules must be defined on content-attitude pairs, not merely on contents (251-2).

Broome thus takes an indirect approach. He claims that standards of correct reasoning derive from *basing permissions*. A basing permission is a permission of rationality to base certain attitudes on other attitudes. Reasoning from a set of attitudes to a further attitude is correct just in case it follows a basing permission (247). So, for example, very roughly, rationality permits you to base an intention to *F* on a belief that you ought to *F* (290) but not to base the belief that it is okay not to *F* on the belief that you are not going to *F*. That is why it is correct reasoning to move from the belief that you ought to *F* to intending to *F* but not correct reasoning to move from the belief that you are not going to *F* to the belief that it is okay not to *F*.

While the standards for correct reasoning thus derive most immediately from basing permissions, Broome insists that reasoning can nonetheless be thought of as a means to satisfying requirements of rationality. Basing permissions are themselves derived from requirements of rationality.² Thus, ‘for each requirement of rationality we can expect there to be a corresponding basing permission’ (258). Of correct instrumental reasoning, Broome says: ‘it is correct to reason according to the permission just because this is a way to satisfy the requirement’ (ibid.). The point, we take it, is supposed to be general.

2. Worries

We want to raise several worries about this picture.

² At least, *some* are (cf. 191). We return to this below.

Given the intimate connection between reasoning and basing (189), it seems clear that the standards of correct reasoning and the standards of correct basing are closely related. The really substantive part of Broome's picture thus seems to be the idea that standards of correct basing derive from requirements of rationality. Unfortunately, we do not see the grounds for Broome's confidence that basing permissions can be derived from these requirements. We saw above that not all reasoning leading to the satisfaction of a rational requirement is correct. A similar point holds of basing permissions: not all ways of basing that would lead to the satisfaction of such a requirement are permitted. In particular, as Broome notes (138ff.), basing permissions are *asymmetrical* in a way that requirements of rationality like Enkrasia are not. You satisfy Enkrasia if either you both believe that you ought to *F* and intend to *F* or you do not believe that you ought to *F*. However, although it is rationally permissible to base the intention to *F* on the belief that you ought to *F*, it is not rationally permissible to base the lack of a belief that you ought to *F* on the lack of an intention to *F*. It is hard to see how one could get this asymmetry out of the symmetrical rational requirement.

Broome accounts for the asymmetry by positing basing *prohibitions*, such as a prohibition on not believing that you ought to *F* on the basis of not intending to *F* (140-1). But, in the absence of any account of where these prohibitions come from, this seems simply to restate the asymmetry rather than explain it. What's more, it seems clear that these prohibitions *can't* derive from requirements such as Enkrasia. If you dropped your belief that you ought to *F* on the basis of not intending to *F*, you would not thereby violate Enkrasia. On the contrary, you would come to satisfy it. That is the problem.

Our second worry has to do with the defeasibility of correct reasoning. There is such a thing as inductive or abductive reasoning, and this can be done correctly or incorrectly (as Broome

agrees – 191). But correct inductive or abductive reasoning is defeasible. This defeasibility is reflected in the standards of rationality: a defeater can make it rational to believe the premises of (what would otherwise be) a correct inductive or abductive inference, without believing the conclusion. Thus, there is no requirement of rationality requiring that, if you believe the premises of such an inference, you also believe the conclusion (even if you care about it).³ Similar points apply to defeasible practical reasoning, such as reasoning from the belief that you promised to *F* to the intention to *F*. In general, correct defeasible reasoning won't get you to satisfy any requirement of rationality. This reinforces the worry that the standards for correct reasoning can't be derived from these requirements.

Despite the difficulty of explaining how, Broome feels that the standards for correct reasoning *must* derive ultimately from requirements of rationality (258). We're not so sure. There is reason to agree with Broome about this *if*, as he thinks, what it *is* to reason correctly has something to do with meeting requirements of rationality. But that's a controversial claim. There are other possible views of what it is to reason correctly, as we will note below.

Another reason to agree with Broome would be if what it is to reason *at all* had something to do with the requirements of rationality. For example, one might think that reasoning is a way of trying to satisfy these requirements. But that's not obvious either, and indeed it's not Broome's view. As noted above, he thinks that reasoning is simply operating on content-attitude pairs by following rules.

³ The argument here relies on Broome's assumption that if you violate a rational requirement, you are thereby irrational. One option for Broome would be to give up this assumption and thus make room for a notion of a *defeasible* rational requirement. However, this move would have severe consequences. For one thing, it would undermine Broome's account of the property of rationality in terms of rational requirements (117-8). Perhaps more damagingly still, it would undermine Broome's methodology of testing putative rational requirements by considering whether it is possible to be rational while violating them – see esp. chs.9 and 10.

This brings us to our third worry. It would be surprising if there were no connection between what it is to reason, and what it is to reason correctly, or well. In general, when there is a standard for *A*-ing correctly or well, a standard which applies to any possible instance of *A*-ing, this has something to do with what it is to *A* – for example, with the point or aim of *A*-ing. For instance, there are standards for building a house correctly or well, deriving from the point of this activity (roughly, to provide shelter).⁴ But there's no obvious connection between operating on content-attitude pairs, and requirements of rationality. It's not clear why satisfying the latter would count as doing the former well or correctly. Why should the right rules for operating on content-attitude pairs be ones that get you to satisfy these requirements?

A simple response to this worry would be to add a condition to the account of reasoning. It has a point or aim: to satisfy requirements of rationality. That's why, when it's being done right, it can get you to satisfy these requirements.

We agree that reasoning has a point or aim. However, we don't think that the point or aim of reasoning is to satisfy rational requirements (or indeed to exploit basing permissions). This brings us to our fourth and final worry.

Rational requirements tell you to have attitudes which fit together in coherent ways (see e.g. 152). As Broome readily admits, though, there may be no reason to be rational in this sense. Broome argues persuasively that satisfying rational requirements need not be a means to anything else there is reason to do (Sec. 11.3). Nor is it clear that satisfying rational

⁴ Cf. Korsgaard (2009: 29). In some cases, we might distinguish between *A*-ing correctly and *A*-ing well – e.g. not all correct chess moves are good moves, not all correct performances of some score are good performances. In these cases, it is the standards for *A*-ing well which derive from the point of *A*-ing. If this distinction applies to reasoning, we take it that Broome's account should be thought of as an account of good reasoning. Cf. Broome's distinction between following a rule correctly and following a correct rule (237).

requirements is worth doing for its own sake. Psychic tidiness doesn't seem like a final value (Kolodny 2007: 251).

So if the point of reasoning is to satisfy rational requirements, reasoning seems like a fairly worthless activity. Why go in for this activity which, even when it is going well, can only be relied on to ensure you meet some requirements which are not worth satisfying?

In fact, Broome believes that there is always a reason to satisfy rational requirements. He accepts – although he acknowledges that he is without an argument for this – that ‘when rationality requires you to F , this fact is a reason for you to F ’ (204).

However, even if true, this claim is not enough to meet the worry. For the claim that there is some reason to F is a very weak one. An activity which, even when going well, still ensures only that you end up doing something that there is *some* reason to do still does not seem especially worth going in for. Even if Broome is right about the non-derivative normativity of rationality, reasoning only has a fairly minor point. That would be disappointing.

3. An Alternative Approach

We want to outline an alternative approach to reasoning, one which we think promises to avoid these difficulties.

It is very plausible that correct theoretical reasoning is truth-preserving reasoning. If you reason correctly from true beliefs then, other things equal, you will reach further true beliefs. Indeed, all of Broome's examples of correct theoretical reasoning are necessarily truth-

preserving: when they begin from true beliefs, they are guaranteed take you to further true beliefs.

True beliefs are *correct* beliefs. So, correct theoretical reasoning preserves correctness of belief.

This picture can be generalised. Beliefs are not the only attitudes which can be correct.

Intentions can also be correct. We might think, for instance, that it is correct to intend to *F* just when you are permitted to *F* and it is up to you, in Broome's sense, whether to *F*.⁵ So, as a first pass, we might suggest that correct reasoning is *correctness-preserving* reasoning:

It is correct to reason from attitudes $P_1 \dots P_n$ to attitude *C* if and only if other things equal, if $P_1 \dots P_n$ are all correct, *C* is correct.

The suggestion here is that the point of reasoning is to get things right – to get correct attitudes. This seems a plausible claim – unlike coherence, getting things right is clearly worth aiming at, insofar as you are revising your attitudes. Of course, correct reasoning won't typically achieve this aim when it starts from incorrect attitudes, but in that case the fault lies with the starting points, not with the reasoning.

This account vindicates all the examples of correct reasoning Broome endorses.⁶ Consider Broome's example of enkratic reasoning:

⁵ Cf. Shah 2008. The case which Broome gives to illustrate the need for an 'up to you' premise in enkratic reasoning (290) can be adapted to show the need for it here. Note that, while we will assume this standard of correctness for intentions for purposes of illustration, we are not committed to it.

⁶ Modus ponens reasoning, instrumental reasoning, and enkratic reasoning are the only examples of correct reasoning which Broome officially endorses. He also says it's plausible that it's correct to reason from the preferring *p* to *q* and *q* to *r* to preferring *p* to *r* (269). The suggestion in the text supports this claim, given the

I ought to take a break.

It is up to me whether or not I take a break.

So I shall take a break (290).

If the beliefs you express here are correct, then it is true that you ought to take a break and up to you whether to do so. And in that case, it is correct to intend to take a break.

Now consider Broome's example of instrumental reasoning:

I shall visit Venice.

My buying a ticket is a means implied by my visiting Venice.

My buying a ticket is up to me

So I shall buy a ticket (260).

If the intention you express here is correct, then you are permitted to visit Venice. If you are permitted to visit Venice and buying a ticket is a means implied by your visiting Venice, you are permitted to buy a ticket.⁷ And if it is also up to you whether to buy a ticket, it is correct to intend to do so.

plausible assumptions that 'better than' is transitive and that it's correct to prefer p to q just in case p is better than q . (Note that the second of these assumptions does not entail – although we do take it to support – a 'fitting attitudes' account of value. For discussion and references see McHugh and Way ms).

⁷ The permission transmission principle appealed to here is a version of the familiar and plausible idea that practical normativity transmits from ends to means. Broome assumes that there is some such principle but might doubt the one we rely on here, for the reasons for which he doubts Ends to Means Transmission (126, 128). However, the sorts of cases which lead Broome to doubt this principle do not arise when an end is intended. So we suspect that if the permission transmission principle must be revised, its successor will still allow us to vindicate instrumental reasoning. But for defence of the permission transmission principle, see Kiesewetter ms.

This suggestion also rules out bad kinds of reasoning that nonetheless lead to the satisfaction of a rational requirement. For instance, the reasoning ‘I am not going to F , so it is okay not to F ’ does not preserve correctness. Even if you are not going to F , it might be that you ought to do so (cf. Way 2011: 233). And since we do not try to show how asymmetrical basing permissions derive from symmetrical rational requirements, we do not face the symmetry problem for Broome’s view.

Finally, since this view claims only that correct reasoning preserves correctness *other things equal*, it accommodates the defeasibility of correct reasoning. Other things equal, inductive and abductive reasoning preserve truth. And other things equal, when you promise to F , it is correct to intend to F .

For a reason that Broome himself notes, this simple account is too simple. Not all truth-preserving reasoning is correct reasoning. For instance, even if Goldbach’s conjecture is a logical consequence of the Peano Axioms, it is not correct reasoning to move from the Peano Axioms to Goldbach’s conjecture (190). (See McHugh and Way ms for another kind of example). Intuitively, the problem here is that, even if Goldbach’s conjecture is a logical consequence of the Peano Axioms, we are not *sensitive* to that. In general, there is a difference between inferring a conclusion which follows from your premises and inferring a conclusion *because* it follows from your premises. The distinction here is a general one. It’s one thing to do the right thing, and another to do what’s right because it’s right.

It's a further project to say what such sensitivity involves. But we take it that there is a clear enough notion here, and one which will be needed for a variety of purposes.⁸ Given this notion, we can suggest the following account of correct reasoning:

It is correct for S to reason from attitudes $P_1 \dots P_n$ to attitude C if and only if (i) other things equal, if $P_1 \dots P_n$ are all correct, C is correct and (ii) S is in a position to be sensitive to (i).

In so far as acquiring new attitudes that are correct seems worth doing, we think this is an attractive account of the point of reasoning, what it takes for it to be done correctly, and the connection between these two things.

Much more must be said in order to develop this account.⁹ In doing so, we, like everyone else working on these issues, will continue to learn an immense amount from Broome's pioneering work.¹⁰

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⁸ Broome's account of rule-following (Sec. 13.4) might be seen as an account of something like this notion: there is a difference between conforming to a rule and doing so by being sensitive to it.

⁹ We take some first steps in McHugh and Way ms. See also McHugh forthcoming.

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