Is There Reason to be Theoretically Rational? [1]

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1. Introduction

An important advance in normativity research over the last decade is an increased understanding of the distinction, and difference, between *normativity* and *rationality*. *Normativity* concerns or picks out a broad set of concepts that have in common that they are, put loosely, guiding. For example, consider two commonly used normative concepts: that of a *normative reason* and that of an *ought*. To have a normative reason to perform some action is for there to be something that counts in favour of performing that action, perhaps that doing so will result in a good outcome. Likewise with ought, when there is sufficient evidence for something, one ought to believe it (at least under normal circumstances). Not all guidance need be directed towards a specific mental state or a specific action. Subject to the requirements of normativity, too, are relations. It is commonly believed, for example, that we ought not to hold contradictory beliefs.[2]

At least some of the requirements that concern relations amongst an agent's mental states are, or seem, distinctive. Agents who fail to satisfy these requirements are considered irrational to some degree. On many current views, being irrational is distinct in some way from

[1] This paper in its final form has come into being due to comments from a number of philosophers. Particularly helpful were John Broome, Pascal Engel, Daniel Laurier, Kevin Mulligan, Jessica Pepp, Philip Pettit, Wlodek Rabinowicz, Toni Rønnow-Rasmussen, Robert Stephens, Asbjørn Steglich-Petersen, Johannes Stern, Sarah Stroud, and an anonymous referee for this volume. I received valuable feedback in a group setting at the Higher Philosophy Seminar at the University of Lund and from those in attendance at the Danish Philosophical Society Workshop in Epistemology.

[2] That is, one ought not to believe p while believing $\sim p$. This is an ought that governs a relation. Contrast the relational case with the ought that governs a single state with complex concepts: one ought not to believe p & $\sim p$.

not being how one ought to be; *rationality* is a concept commonly thought distinct from *normativity* by philosophers working on reasons and oughts. Much of the literature on this topic over the last decade stems from attempts to capture the characteristic features of the requirements of rationality. Two influential views in particular did much to set the agenda. The first of these two was put forward by John Broome.[3] His view, the particulars of which I shall discuss in more detail below, is that the requirements of rationality could be expressed using a normative relation, which he calls a 'normative requirement'. Normative requirements are conditionals governed by an all-things-considered *ought*. In the case of rationality, the conditional is made up entirely of mental states. As an example, you ought not to (believe *p* and also believe not *p*). For the moment, two points should be stressed. The first is that Broome believed that the norms of rationality (or at least a great many of them) are distinguished by their logical form[4] and that the normativity of rationality is that of the final, all-things-considered ought. To put it another way, the requirements of rationality have no distinct normative status, but they have a distinct shape. The second thing that should be stressed is that the requirements of rationality have their normativity because of the logical or conceptual relations amongst the contents of the relevant mental states. Rationality requires of us that we do not believe both a conditional and its antecedent, while believing the negation of the conditional's consequent. The explanation for this, according to Broome, was that the contents of those beliefs must accord with the logic of *modus ponens*.[5]

Derek Parfit develops the second influential line of reasoning in a paper from 2001.[6] Here, Parfit makes the now widely accepted claim that the requirements of rationality are not themselves either *oughts* or *normative reasons*. According to Parfit, what we ought (or in his terms, 'have most reason') to do is given to us by the facts. He adopts a strong form of

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[3] Broome (2000)

[4] In fact, this statement requires some care. Not all normative requirements were rational requirements. And, in principle, there might be normative requirements that governed only mental states that were not rational requirements, but rational requirements were normative requirements and were formally indistinct from other normative requirements.

[5] Broome (2000)

[6] Parfit (2001)

externalism, in which these facts are for the most part not facts about our mental states. What is most rational, however, is what we would have most reason to do, were our non-normative beliefs true. His view is strikingly different from that set out in Broome's earlier paper for a number of reasons, but there is just one aspect that requires attention here. Parfit's view draws on a contrast between *reasons* or *oughts*, on the one hand, and *rationality* on the other. Rationality places requirements on the relations amongst our mental states, but those requirements are not, and do not have the force of, normative reasons or oughts. Broome's view was that, in fact, the requirements of rationality are normative requirements, i.e. oughts that govern conditionals.

Broome was later to adopt Parfit's point of view about the distinction between normativity and rationality, although Broome retains his very different ideas about what rationality requires of us.[7] Indeed, there was broad consensus within just a few years of the publication of Parfit's work that there is an important distinction at hand.[8]

This paper aims to settle a lingering question raised by having made a distinction between rationality and normativity: is there reason (a normative reason or an ought) to be rational, even though we have accepted that rationality and normativity are conceptually distinct? In particular, this paper will look at the more specific matter of whether there is reason to be theoretically rational. I shall argue that there is very strong reason to be theoretically rational. Unfortunately, answering the question about theoretical rationality does not settle questions about the normativity of practical rationality, but I shall outline in a speculative way how the considerations raised here in favour of the normativity of theoretical rationality might be used to show that the requirements of practical rationality are normative.

2. The structure of normative requirements

We often say that you ought to do this or that. Quite often what you ought to do is a simple thing, like going to the shop. In such cases we say, 'You ought to go to the shop'. Sometimes we want to express a more complex thought about what you ought to do. A more complex thought is that there is some sort of conditional thing that you ought to do. In English, when we want

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[7] Broome (2005)

[8] See Broome (2005), Kolodny (2005 & 2007), Parfit (2001), Reisner (2009a), Wedgwood (2004). For those who remain uncertain about the distinction, see (Raz 2005).

to say that there is a conditional thing that you ought to do, or make the case, we express it by the locution, 'If *p*, then you ought to *q*'. While this locution seems straightforward enough at first blush, it is capable of expressing normative conditionals of two different forms. The distinction between these forms is clear when they are formalised. The first logical form follows the English word order. Here, the ought has a *narrow scope*:

F1. $p \rightarrow Oq$

F1 expresses a material conditional with the normativity attached to the consequent. To use Broome's terminology, we can say that the normativity in this case is *detaching*. We say it is detaching, because when the antecedent of this conditional is true, then it is the case that you ought to satisfy the consequent. Thus, when *p* is the case, we can detach, by *modus ponens*, the proposition that you ought to *q*. Let us call this reading of 'If *p* then you ought to *q*' the *narrow-scope* reading. We can say that the conditional in F1 has a *narrow-scope* ought. We say that the ought has a narrow-scope because it governs only the consequent of the conditional.

The second logical form does not follow the English word order. In order to express this alternative logical form unambiguously in English, we have to bend normal English syntax slightly, so that 'ought' takes a proposition rather than an infinitive. So, we would say 'You ought that if *p* then *q*':[9]

F2. $O(p \rightarrow q)$

This reading is the *wide-scope* reading of the conditional. F2 is a *wide-scope* ought. We call this ought a 'wide-scope' ought, because the normativity does not govern only the consequent, but

[9] This change in syntax does less violence to the language than might be feared. Infinitives have implied subjects when they compliment a modal auxiliary verb. When you say 'You ought to go to the shop', the infinitive 'to go to the shop' has 'you' as its implied subject. Furthermore, other ways of saying you ought to do something- 'It is fitting that…' or 'It is meet that…' take propositions rather than infinitives.

rather governs the entire conditional. To use Broome's terminology again, we can say that the normativity here is *non-detaching*. It is non-detaching because from $O(p \rightarrow q)$ and p, one cannot detach the conclusion Oq. We should keep two things in mind about the distinction between wide-scope oughts and narrow-scope oughts. The first is that narrow-scope oughts are detaching: one can detach a normative consequent when the antecedent is true, whereas one cannot do so with wide-scope oughts. The second is that in the case of wide-scope oughts, the agent to whom the ought applies is responsible for the truth of the conditional. Thus, one has satisfied a wide-scope ought as long as any of the truth conditions for the conditional that it governs have been met.

In Broome's terminology, a normative requirement is a wide-scope ought.[10] That p normatively requires q just means that you ought that if p then q, to use the awkward English phrasing. Broome had, in the past, argued that many requirements of rationality are normative requirements.[11]

Before looking at why one might think that rational requirements, or at least some rational requirements, might be normative requirements, it will be helpful to look at why one might think that rationality is a type of normativity at all.[12] One reason for taking the requirements of rationality to be requirements of normativity, i.e. ought or reasons claims, is that doing so explains the pressure to be rational. If rational requirements are something other than oughts or reasons, then there is a separate question of why, or if, one ought to be rational.[13] If the requirements of rationality are normative requirements that concern relations amongst our mental states, then there is no question as to whether one ought or has reason to

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[10] In the original paper, 'Normative Requirements', Broome conceives of normative requirements as being more complex than a wide-scope ought governing a material conditional. However, he has since given up the additional logical features and has identified normative requirements as wide-scope oughts. See Broome (2004)

[11] See Broome (2000).

[12] Kolodny (2005) discusses this issue in a great deal more detail.

[13] Kolodny (2005) thinks that there is no reason to be rational.

be rational; to ask the further question would be to ask if one ought to do what one ought to do, or if one has reason to do what one has reason to do.[14]

The use of wide-scope oughts, or perhaps wide-scope reasons, in giving an account of (at least some) rational requirements is important for any view that holds that rational requirements are normative. This is because of what Michael Bratman calls the 'bootstrapping problem'.[15] The bootstrapping problem arises when we try to explain the role of belief in theoretical rationality and the role of intention in practical rationality.

Consider my belief that it is Tuesday and also my belief that if it is Tuesday, then I am in Belgium. These two beliefs rationally require me not to believe that I am not in Belgium. If we are giving an account of rational requirements in terms of normativity, there are three plausible analyses of this particular example. The first analysis is that there is a narrow-scope ought attached to the consequent. If I believe that it is Tuesday and I believe that if it is Tuesday, then I am in Belgium, then I ought not to believe that I am not in Belgium:

F3. $\ulcorner \mathrm{B}t \,\&\, \mathrm{B}(t \rightarrow b) \urcorner \rightarrow \mathrm{O}{\sim}\mathrm{B}{\sim}b$

The second analysis is similar to the first, but with a reason rather than an ought attached to the consequent. If I believe that it is Tuesday and I believe that if it is Tuesday, then I am in Belgium, then I have a reason not to believe that I am not in Belgium:

F4. $\ulcorner \mathrm{B}t \,\&\, \mathrm{B}(t \rightarrow b) \urcorner \rightarrow \mathrm{R}{\sim}\mathrm{B}{\sim}b$

F3 and F4 are both subject to the bootstrapping objection. I may have no reason whatsoever to believe that it is Tuesday or that if it is Tuesday then I am in Belgium. Indeed, I may have very good reason to believe that I am not in Belgium. If both my belief about the conditional and my belief about its antecedent are unjustified or there is no reason to believe them (or perhaps

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[14] I take the liberty of treating 'do' here as a universal verb.

[15] Bratman (1999). See especially pp. 24–27.

there are strong reasons not to hold those beliefs), then it is hard to see what reason there is to deny a belief that is inconsistent with them. Just the having of some beliefs does not in normal circumstances stand as evidence for the truth of the logical consequences of those beliefs.[16]

The thrust of the objection to using detaching normative relations when characterising rationality is that no matter how little reason there is for an agent to have certain beliefs or intentions, or indeed no matter how much reason there is for an agent not to have those beliefs or intentions, having those beliefs or intentions would make it the case that there is some reason for the agent to have the mental states that follow rationally from the initial ones. In other words, if rationality is expressed by detaching normative relations, there would be a reason for an agent to believe what follows immediately from two irrationally held beliefs, and there would be a reason for an agent to intend what follows immediately from an irrational intention and an irrational belief about the necessary means to carrying out that intention.

As a result of the difficulties involved in expressing the requirements of rationality with detaching normative relations, there is some appeal to a third analysis: the idea that rationality is really a system of non-detaching normative relations. I shall ultimately argue that this analysis is very much on the right track, although spelling out just how and why requires some care. In particular, we must be careful to distinguish between the view that rational requirements are themselves special instances of oughts or reasons and the view that they give rise to oughts or reasons. It is the latter view that has the most plausibility.

It will be helpful to say just a little more about what notion of rationality it is that we are trying to capture. There are two distinct aspects to rationality, only one of which we need be concerned with. The first one, the one that is not (or is not very) relevant here, is the descriptive aspect. Descriptive theories of rationality aim at describing how it is that we reason or try to give an accurate picture of the relations amongst certain people's mental states. The second aspect is the norm or requirement expressing part, and it is this one in which we are interested. This part of rationality is that part which tells us what are the correct relations

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[16] I am assuming that there are no non-evidential reasons for the beliefs in question. It is worth noting that one can set up parallel bootstrapping objections for principles of practical rationality. Indeed, this was Bratman's original use of the objection.

amongst an agent's mental states, the lack of which are constitutive of her being (at least partially) irrational.

It is worth noting that not all normative requirements that govern mental states are rational requirements. But, it may be difficult to develop a precise set of criteria for distinguishing between normative requirements on mental states that capture a requirement of rationality and those that do not. Whatever the correct account is, it will have something to do with the nature of the relations amongst the contents of the various mental states involved. One might say that these requirements will hold in virtue of certain logical and conceptual relationships amongst the contents of an agent's mental states. Perhaps the requirements are understood as expressing a certain category of ideals concerning human mental life.

We need not take up the question of which normative requirements governing mental states are supposed to be rational requirements, because the aim here is to consider whether rational requirements are normative requirements, not to settle which normative requirements might also be rational requirements. All we need ask is whether clear examples of rational requirements are normative, and if so, why and in what way.

3. Why rational requirements are not normative requirements

The argument here requires the making of a distinction between two types of normative reasons: object-given reasons and state-given reasons. What we might think of as ordinary or typical reasons, those arising out of some conceptual "fit" between the attitude and its object, are object-given reasons. State-given reasons arise out of the benefits or harms that follow from having a particular attitude. An example is helpful to understanding the distinction. Normally we admire someone because she is admirable – perhaps she has through hard work and personal integrity achieved a position of importance. Or, perhaps she has endured some suffering with nobility and dignity and still finds time to selflessly help others. These are the sorts of characteristics that would, under normal circumstances, provide or be reasons to admire someone. They are object-given reasons.[17] By way of contrast, there might be a very different sort of reason to admire someone. A friendly billionaire might offer you half of her fortune if you will admire Alex. Alex is a lazy sadist with a poor sense of humor. He lacks all the qualities

[17] See Parfit (2001).

that we might normally consider admirable. Still, the prospect of a large reward for so doing is a reason for you to admire him. This sort of reason is a state-given reason, a reason that depends not on how well the object of one's attitude fits the attitude, but rather depends on the incentives for holding that attitude.[18]

Just as there can be state-given reasons for certain pro-attitudes, like admiring, and for neutral propositional attitudes, like intending and believing,[19] there can also be the equivalent of a state-given reason for having or not having certain combinations of mental states. An example will make this point clearer. This example makes use of a paradigm principle of rationality, that believing a conditional and its antecedent rationally requires you not to believe the negation of its consequent. This may be expressed as the following normative requirement:

NR1. $O\{\ulcorner B p \,\&\, B(p \rightarrow q)\urcorner \rightarrow \sim B \sim q\}$

Note that the ought governs the entire conditional rather than the consequent, so we cannot detach $O\sim B\sim q$ when the antecedent is true.

Some eccentric billionaire might offer you a prize for believing p, believing if p then q, and yet believing not q. According to the normative requirement, NR1, above, you would not be as you ought to be, should you have the first two beliefs while believing not q. NR1 says that it is normatively required that the following conditional not be true of you: if you believe p and believe if p then q, you believe not q. Imagine now that with the money you will get from believing p, believing if p then q and believing not q, you could and would feed all the hungry people in the world. We might very well think that you ought to, assuming that you can, believe p, if p then q, and not q. You are, in this case, as you ought to be. We can express this as a new normative requirement:

NR2. $O\{\ulcorner B p \,\&\, B(p \rightarrow q)\urcorner \rightarrow B \sim q\}$

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[18] This is only a rough account of the distinction. The notion of *fit* is problematic. See Danielsson and Olson (2007) for one way of working out this notion.

[19] For a defense of the view that there are state-given reasons for belief, see Reisner (2009b).

On a fairly standard account of the semantics of ought, *ought not* implies *not ought*. This means that NR1 and NR2 jointly entail a contradiction, so one or the other must be discarded.[20]

Intuitions about which one of the two normative requirements to reject might go either way, but it strikes me, at least, that it would be quite hard to explain how it is that saving all the starving people in the world does not have deontic or normative priority over violating a principle of rationality. If this is the case, then at least sometimes NR1 is false. That we sometimes ought not to have our collection of beliefs be such that when we believe *p* and believe if *p* then *q*, then we do not believe ~*q* has a great deal of significance for how we interpret the claim that we are rationally required to be in a state in which we do not, when we believe *p* and believe if *p* then *q*, then believe ~*q*.[21]

One way of interpreting this situation is that sometimes we re-designate as rational certain relations amongst our beliefs that we normally designate as irrational. This interpretation carries with it a rather substantive view that there is more to rationality than the normal constraints of logic on what it is rational for us to believe or intend. I mean to use 'logic' here in a very general sense. We ought not to be happy with this interpretation of the situation for two reasons. The first is that we risk losing the notion of *rationality* when we allow conditions unconstrained by the logical relations amongst the contents of our mental states to determine which relations amongst mental states we judge to be rational.[22] The second is that this interpretation seems to conflate two distinct notions: what is rationally required or permitted, with what is normatively required or permitted. Drawing on Parfit again, we may describe the error as conflating what is rational with what there is reason for. Of course, the two may overlap or even be coextensive, but it seems to be a mistake to think that 'ought' and 'rationally required' are just interchangeable.

So, we can try another way of interpreting the situation, and I think that this one is the most sensible. On this view, the initial error is in thinking that *rational requirements* are

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[20] This is more obvious if we look at a logical transform of NR1: O~{⌜Bp & B(p → q)⌝ & B~q}.

[21] This assumes that there are no genuine normative dilemmas.

[22] For a fuller explanation of this point, see Reisner (2009a).

conceptually identical to *normative requirements* (or form a proper subset thereof). The truth of any particular normative requirement is, like any other ought, determined by the various features of the world on which normativity is dependent. Eccentric billionaire examples can be generated for any requirement of rationality that could be given as a normative requirement; sometimes it is the case that it would be so bad to be rational that one ought not to be.

Rationality, on the other hand, is dependent on some complex of the logical features of the relations amongst an agent's mental states and their contents; the rational supervenes strictly on the mental, and this is not the case for the normative. That it would be extremely bad for an agent to have mental states that would qualify an agent as (locally) rational does not affect the truth of the matter about whether or not an agent's mental states are such that she is (locally) rational.

However, one must be careful not to draw too strong a conclusion from this argument. We can see that it is possible to be rationally required to be a certain way when we are not normatively required to be this way. This argument in the past had led me, at least, to press for a strong conclusion: that rationality is not normative.[23] As it turns out, or so I shall argue, we should draw a much weaker conclusion: that rational requirements are not normative requirements where the ought involved is an all-things-considered ought. Rational requirements, or at least theoretical rational requirements, entail strong reasons (at least under certain reasonable assumptions). Indeed, they may be identical to normative requirements governed by a defeasible ought. Or, as is more likely, the presence of a rational requirement may make it the case that we defeasibly ought to conform to the requirement.

4. Three objections

In this section, I wish briefly to consider three objections to the argument for distinguishing between rational requirements and normative requirements (of the sort governed by an all-things-considered ought). The first objection is the not uncommonly held view that there are no genuine state-given reasons, and that putative state-given reasons are in fact object-given reasons for having higher-order attitudes. The second objection is closely related to the first:

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[23] I make this claim in my doctoral thesis: see Reisner (2004). Broome arrives at a similar conclusion: see Broome (2005).

that apparent state-given reasons for propositional attitudes are really ordinary reasons for bringing it about that you have the attitude in question. The third objection is that a dispositional account of rationality will not be subject to arguments that I have given.

The arguments here have depended on the existence of state-given reasons. Some people believe that there are no state-given reasons.[24] They take it that state-given reasons are really second order object-given reasons. On this view, that some eccentric billionaire offers you one billion dollars to admire lazy Alex is not a reason to admire Alex, but rather it is an object-given reason to desire to admire Alex.

There are a variety of reasons for rejecting this view, and even for doubting the viability of the object-given/state-given distinction.[25] I shall just offer one argument of my own as to why one might want to accept that there are genuine state-given reasons. Call this the *blocked ascent* argument.[26]

Suppose you are offered a large prize for admiring Alex, the lazy and humorless sadist. On the view that there are no state-given reasons, there will be only an object-given reason to desire that you admire Alex. To put this in a general way, to find the reason that you actually have, you must ascend to find a higher order object-given reason. The problem with this view is that it is possible to block the ascent by changing the incentives in the example slightly. Instead of being offered the prize for admiring Alex, you are offered the prize for admiring Alex and for having *no higher order attitudes* that have your admiring Alex as part of their contents. This last clause includes cases where your admiring Alex is deeply embedded, so that you lose the prize by desiring that you desire that you desire that (and so on) you admire Alex. Any ascent leads to your losing the prize.

In the case of blocked ascent, it is not at all clear why one would say that there is any reason given by the billionaire's offer at all, if one denies that there are state-given reasons. Because one has no object-given reasons for higher-order attitudes and because one, *ex hypothesi*, cannot have a state-given reason for the first order attitude, there is apparently no

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[24] See Parfit (2001).

[25] For a comprehensive discussion, see Rabinowicz and Ronnøw-Rasmussen (2004).

[26] A fuller version of the blocked ascent argument can be found in Reisner (2009b).

reason generated at all. This may not seem like an absolutely objectionable conclusion in an eccentric billionaire example. However, it becomes much more objectionable in mad scientist cases, in which failure to admire Alex leads not to the loss of a mere monetary prize, but rather leads to a mad scientist committing an awful atrocity. In blocked ascent cases, those who think that there are no state-given reasons must accept that there is no reason to admire someone awful, when doing so is the only way to save the world. While someone who denies that there are any state-given reasons could bite the bullet, they do so at great cost.

The second objection is closely related to the first. Rather than taking state-given reasons to be object-given reasons for having higher-order attitudes, one could instead take state-given reasons to be object-given reasons for bringing it about that one satisfies what there is a putative state-given reason to intend or believe.[27] In the case of Alex the lazy sadist, one does not have reason to admire Alex. Rather, one has reason to bring it about that one admires Alex. Here again, there is a straightforward reply. One can rewrite the example such that the billionaire gives you the prize only if you admire Alex and do not bring it about that you admire Alex. What is slightly less satisfactory with using this style of reply to answer the second objection is that it is not implausible that doing something ('do' here is just used as the universal verb and is not meant to imply an action verb *per se*) is a special case of bringing it about that one does something. One way to bring it about that you do something is to do it.

It is easy enough to come up with conditions for winning the prize that will block causal ascent; they will be of a piece with those that block attitudinal ascent. Still, there are two much more fundamental reasons to doubt the effectiveness of the 'bringing it about' objection. The first reason is that if 'doing' is a special case of 'bringing it about that you do', then it appears that all saying that you have reason to bring it about that you admire Alex does is to add reasons, not to subtract them. One way to bring it about that you admire Alex is just to admire him. Of course, you could also bring it about by taking a special pill that will cause you to admire him. You have a reason to do either on the bringing-it-about view, since either is an instance of bringing it about.

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[27] Pamela Hieronymi (2005) suggests this account.

The second reason is this: suppose, despite what I have just argued, you think that admiring Alex is not just a special case of bringing it about that you admire Alex. There will still be a worry deriving from the fact that 'brings about' is a success verb. If you bring it about that you admire Alex, then it is an analytic necessity that you admire Alex. Those who support the bringing-it-about account of state-given reasons must also be committed to the controversial view that having a reason for x does not give you a reason for what necessarily follows from x. If one does not deny this inference, then having a reason to bring about that one believes b will entail that one has a reason to believe b.

The third objection I shall address is that one could interpret normative requirements dispositionally. On this view, the ought that governs a normative requirement says something about a way that people are set up, not about what the relations amongst their mental states are in individual instances. Here, the claim that *I ought not to* x is consistent with *I ought to have a disposition to* x. So, if I ought to have the disposition to have my mental states be thus and so, it is not inconsistent to say that in a particular instance, my mental states ought not to be thus and so.

This third objection is successful against the particular examples that I have given above, but eccentric billionaires can do what they like, and there is no reason why they cannot offer incentives not to have particular dispositions. If you get the prize by being disposed not to have the rationally required set of mental states, then the same type of conflict arises that rules out the view that putative state-given reasons are really higher-order object-given reasons and the view that putative state-given reasons are really reasons to bring it about that one has a certain attitude.

5. The normativity of theoretical rationality

If the objections to the claim that rational requirements are normative requirements have been dealt with satisfactorily, we can draw two conclusions. The first is that rational requirements are not conceptually identical to normative requirements in which the ought is an all-things-considered ought. The second is that rational requirements do not entail normative requirements governed by an all-things-considered ought. However, this leaves room for the

view that either a wide-scope reason or a wide-scope *defeasible* ought is identical to, or is entailed by, a rational requirement.

The argument for there being reason to be theoretically rational in one of these two senses is quite straightforward. What is difficult to determine is just what its precise upshot is. Let us consider a belief that one clearly has a normative reason not to believe, assuming that there are evidential reasons for belief. In the formalisation, I shall use 'N' as the normative reason operator:

E5. You have a reason not to believe p and not p
F5. $N\sim[B(p \,\&\, \sim p)]$

Assuming classical logic, the probability that $p \,\&\, \sim p$ is false is 1. So, there is a perfectly straightforward epistemic reason not to believe a contradiction: it is certainly false.

Rational requirements govern relations amongst an agent's beliefs. There is, for example, a rational requirement not to have contradictory beliefs. In the formalisation, I shall use 'RR' as the rational requirement operator:

E6. You are rationally required not (to believe p and to believe $\sim p$)
F6. $RR\sim(Bp \,\&\, B\sim p)$

We can write up F6 as a rational requirement of the traditional form, using a material conditional:

F6a. $RR(Bp \rightarrow \sim B\sim p)$

Is there a good epistemic reason to comply with the rational requirement in F6? The answer looks to be that there is, on just the same grounds that there is reason not to believe a

contradiction. The probability that both of your contradictory beliefs are true is zero, and this is a perfectly good epistemic reason not to have both beliefs simultaneously.[28]

This line of argument can be extended quite straightforwardly to any requirement of theoretical rationality, as long as it is a consistency requirement. Consider just one more rational requirement as an illustration:

E7. You are rationally required not to believe $\sim q$ if you believe p and if p then q.

F7. $\mathrm{RR}\{\ulcorner \mathrm{B}p \,\&\, \mathrm{B}(p \rightarrow q)\urcorner \rightarrow \sim \mathrm{B}\sim q\}$

We can see again that the probability that $\{p \,\&\, (p \rightarrow q) \,\&\, \sim q\}$ is false is 1.[29] This provides a perfectly good epistemic reason to comply with F5. Of course, there is no reason to comply with F7 in any one particular way rather than another, just so long as one complies with it in one of those ways.[30] To put things more formally:

E8. When there is a wide-scope rational (consistency) requirement, there is a wide-scope normative epistemic reason.

F8. $\mathrm{RR}\{\ulcorner \mathrm{B}p \,\&\, \mathrm{B}(p \rightarrow q)\urcorner \rightarrow \sim \mathrm{B}\sim q\} \rightarrow \mathrm{N}\{\ulcorner \mathrm{B}p \,\&\, \mathrm{B}(p \rightarrow q)\urcorner \rightarrow \sim \mathrm{B}\sim q\}$.

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[28] One might want to factorise the explanation in this way. The probability of p given $\sim p$ is 0, and the probability of $\sim p$ given p is 0. This is perfect evidence that both beliefs are not true at the same time.

[29] One could factorise this argument the same way. The conditional probability that any one of the three beliefs is true, given that the other two are, is 0. So, that provides clear evidence that the conjunction of all three beliefs is false.

[30] Note that the claim here is consistent with Gilbert Harman's point that knowing that one should reject a proof does not entail that one ought to disbelieve any of the particular premises. See Harman (2001)

The reasons to conform to a requirement of rationality are ordinary, truth-directed, epistemic reasons. If they have any distinctive feature, it is that they are wide-scope. This feature of the kind of reasons there are to be theoretically rational is very similar to a feature of Broome's original normative requirement account of rational requirements: there is something distinctive about the form of the normativity (it is wide-scope), but there is nothing distinctive about the kind of normativity.

The argument that there is reason to be theoretically rational relies on two tacit premises, either of which might be false. The first is that there are epistemic or evidential reasons of the kind that I am relying on. I have been assuming that if *p* is evidence for *q*, then at least under suitable circumstances, *p* is a reason for you to believe *q*. This is a claim that one might deny. The second assumption is that we can straightforwardly derive wide-scope epistemic reasons in the way required by the arguments above. It behooves me to say something about both of these assumptions.

The first assumption is accepted (with varying specific constraints) by most philosophers who work on normative reasons for belief, or at least by most of those who are not radical pragmatists. Of course, one need not accept this claim. I do not know how to argue that evidence, under suitable circumstances, gives us reasons in a way that would be more persuasive than the basic intuition that it does so.[31] Rather than try to argue for this assumption, let me instead note that there is another assumption that will do the relevant work. This is the assumption that if one knows that *p* is false, then one has a reason not to believe *p*. Granting that logically competent individuals know that contradictions are necessarily false, then one has a reason not to believe a contradiction. Accepting this assumption does not directly commit one to views about evidence giving us reasons.

As to the second assumption, the worry is that our first assumption alone is not enough to generate the wide scope reason:

F6b. N~(B*p* & B~*p*)

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[31] John Broome has expressed some concern about this assumption to me in correspondence.

Rather, it is only strong enough to get us:

F5: N~⌜B(p & ~p)⌝

Why this worry? We know that the complex proposition p and not p is false. That is good enough to give us F5. But, we do not know that p is false, nor do we know that not p is false. So, no single proposition in F6b is known to be false. What we need is an argument that allows us to derive F6b from F5.

It turns out that one cannot directly derive F6b from F5. One may still accept that the probabilistic argument offered above implies F6b; I believe that to be so. However, one can derive F6b from what I take to be a less controversial principle: evidence requires you not to believe p and ~p. Here is the derivation:

1. ER~B(p & ~p)	(assumption)
2. ~ER~(Ba & Bb) → ~ER~⌜B(a & b)⌝	(assumption)
3. ER~⌜B(a & b)⌝ → ER~(Ba & Bb)	(2, contraposition)
4. ER~(Bp & B~p)	(2,3 *modus ponens*)

Premise 2) of this argument relies for its plausibility on the view that we can agglomerate under evidential requirement. If you doubt this, then you will not be persuaded by this argument. Given what it is to be an evidential reason for belief, it should be uncontroversial to infer F6b from 4).[32]

6. The relationship between normativity and theoretical rationality

We now know that the presence of theoretical rational consistency requirements implies that there is reason to conform to those requirements, but we are left with several outstanding questions. In this section, I want to explore whether there is any conceptual relationship

[32] Earlier versions of this argument had serious flaws. John Broome suggested the argument used here. Johannes Stern pointed out the hopelessness of my earlier approach.

between theoretical normativity and theoretical rationality. I shall make the hedged claim that there may be. In the next section, I shall look at whether this argument has any implications for the normativity of practical rationality, and I shall argue that it may, but that much more work is required to spell out how.

To begin with, it makes sense to consider whether the reverse of F4 is true. That is, whether the presence of a wide-scope reason governing a group of an agent's beliefs implies, materially or otherwise, that there is a theoretical rational requirement on that agent. There are some cases that suggest that there can be wide-scope reasons governing an agent's beliefs that do not imply a rational requirement. These reasons are of two kinds, although a further distinction will be required between different categories of the second kind.

The first sort of reason is a pragmatic reason – a reason to believe something because it would be good for you to believe it. I invoked such reasons earlier in arguing that rational requirements are not normative requirements (in the sense of being wide-scope oughts). One might have pragmatic incentives, for example, to hold contradictory beliefs. That does not make holding contradictory beliefs rational.

We might want to make a distinction between pragmatic and epistemic reasons.[33] Epistemic reasons are in some sense 'truthy' reasons – reasons that have something to do with having or getting true beliefs. Construed broadly enough, we might include amongst the epistemic reasons those reasons that come from the advantages they confer to us in increasing the number of interesting true beliefs that we have, even if they do not point to the truth of the specific beliefs that they are for.

Peter Railton[34] suggests as an example considerations of research productivity. It may make sense to continue believing a theory in the face of evidence to the contrary, because the research and thought that flow from one's belief are producing large numbers of interesting true beliefs (or facilitating their production). Whether this is a properly epistemic reason may be controversial. We need not settle the matter here. If such reasons are epistemic reasons, then something's being a wide-scope epistemic reason governing a collection of beliefs is

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[33] See Harman (2001)

[34] See Railton (1997).

insufficient for its being a rational requirement.[35] This is because there could be a wide-scope epistemic reason to believe the contents of a theory that is logically inconsistent.

What we are left with is a narrower possibility: that a wide-scope evidential reason gives us a rational requirement. This possibility looks more promising, but I suspect that it is wrong. I had not been able to think of a counterexample, but one was suggested to me. If there is a normative reason not to have inconsistent beliefs, and if rational requirements just are reasons of this kind, then one would be irrational any time one had inconsistent beliefs. This is far too demanding, and we may want to limit the scope of rational requirements to occurrent beliefs, or relevant beliefs, or some other restricted class of an agent's beliefs. This suggests that rational requirements are not identical to wide-scope normative reasons for belief.[36]

If the identity claim does not hold between wide-scope evidential reasons and theoretical rational requirements, there is a strong conceptual link. What qualifies a requirement governing relations amongst an agent's beliefs as a requirement of rationality (as opposed to some other kind of requirement) is that it is a requirement concerning the consistency of the contents of the agent's beliefs. Because pairs (or larger groups) of inconsistent beliefs cannot all be true, there will also be wide-scope reasons in favour of not having inconsistent beliefs.

Further, the reason not to have inconsistent beliefs is of a particularly strong sort of evidential reason, because the conjunction of one's inconsistent beliefs is certain to be false. This may explain why requirements of theoretical rationality may appear, at first blush, to be normative requirements. Because under normal circumstances evidential reasons dominate non-evidential or pragmatic reasons for belief, there is overriding reason to be theoretically rational. Indeed, in general, one ought to be theoretically rational. The defeasibility of this ought is

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[35] I am not sure that such reasons are normally wide in scope, but it remains a possibility that at least some are.

[36] This suggestion was made to me by John Broome.

explained by the way in which evidential and pragmatic reasons for belief weigh against each other.[37]

We are left with the interesting result that the requirements of theoretical rationality, at least insofar as they are consistency requirements, are inherently normative, although this is not necessarily because the concept *rational requirement* entails the concept *reason*. We can also now see why it was initially tempting to analyse rational requirements as being normative requirements, and that that analysis was not very far off the mark for theoretical rationality; in general, the requirements of theoretical rationality do provide us with normative requirements. At minimum, we are left with an explanation of why the requirements of theoretical rationality have the ability to exert normative pressure on us; there is a reason to be theoretically rational, at least for wide-scope consistency requirements.

7. Lessons for practical rationality?

Nothing so neat as the story we can tell for theoretical rationality can be told for practical rationality. Important practical rational requirements have nothing to do with consistency, and even those that do may not lay claim to the normativity that came with theoretical rational requirements. If there is a story to be told about the normativity of practical rationality, it will be a quite different one.

We can turn first to a requirement that might be called '*enkrasia*'. *Enkrasia* tells us that:

E7. You are required to intend to ϕ whenever you believe that you ought to ϕ.

F7. RR(BO$\phi \rightarrow$ Iϕ).[38]

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[37] See Reisner (2008) for a more detailed account of how pragmatic and evidential reasons for belief can be weighed. Danielsson and Olson (2007) make a similar point about weighing reasons for other propositional attitudes.

[38] This is a view with a long history. A detailed account of its importance can be found in Wedgwood (2007b). He calls the view 'normative judgement internalism'. Another important recent discussion is in Broome (2007c).

There is no straightforward way of reading *enkrasia* as a consistency requirement.[39] If there is some normativity to *enkrasia*, it does not obviously derive from consistency.

Some practical rational requirements are clearly underpinned by considerations of consistency. A weakened version of the instrumental principle is one such case:

E8. You are required not to intend not to take what you believe to be the necessary means to the ends that you intend.

F8. RR$\{\ulcorner \mathrm{I}\phi \,\&\, \mathrm{B}(\phi \rightarrow \psi)\urcorner \rightarrow \sim \mathrm{I}\sim\psi\ \}$.

The weakened instrumental principle requires the contents of one's relevant beliefs and intentions to be consistent. So, in principle, one could say that one has overwhelming evidential reason to follow the weakened instrumental principle. It is difficult to understand what evidential reasons for intentions or actions are, however, and evidence is not likely to be a basic reason-giving norm of practical reason. So, evidence does not obviously make the instrumental principle normative. There may be other ways to argue for the normativity of consistency-based principles of practical reason. Perhaps the near certainty of failure to carry out one's intentions, unless one conforms to the instrumental principle, gives the appropriate sort of practical reason. But, this sounds pragmatic in a way that is not the case for theoretical rationality, and perhaps we should be sceptical of this explanation.

However, even if consistency does not look poised to play the same role in giving normativity to practical rational requirements as it does to theoretical rational requirements, consistency requirements and even *enkrasia* may be normative due to related considerations. We might think that there is a broader notion of consistency than the strictly logical one that we hold as an ideal for out mental lives.[40]

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[39] Wedgwood has argued that it is implied by a particular version of conceptual role semantics about normative terms. See Wedgwood (2007b). Its generation by Wedgwood's conceptual role semantics might count as a kind of consistency, but Wedgwood's view is controversial.

[40] Wlodek Rabinowicz and Philip Pettit both suggested this to me.

On this view, we might explain object-given reasons for propositional attitudes in terms of ways our mental states ideally should relate to their content. For example, object-given reasons to believe something, on this view, are evidential reasons because it is an ideal of our beliefs that they are regulated by truth. Object-given reasons to intend something are identical to the reasons there are to perform the intended action, because intentions should be regulated by consideration of the goodness of the intended actions. Whether this story about object-given reasons is correct, and whether it is sufficient to show that the requirements of practical rationality are normative, remains to be seen. However, it provides at least one possible path for developing not only an account of normativity of practical rationality, but a unified account of the normativity of all rationality. I am sceptical about the prospects for developing an account of the normativity of practical rationality in this way, but it is at least one avenue that might be explored.

8. Conclusion

The question about theoretical rational requirements left unsettled in this paper is whether they might be identified with defeasible normative requirements, or whether they only imply defeasible normative requirements. This question could be settled decisively in the negative by finding wide-scope reasons governing beliefs that are not rational requirements. Given that wide-scope evidential reasons "overshoot" what we intuitively take to be rational requirements, there is good reason to think that there are wide-scope evidential reasons governing beliefs that are not rational requirements. To say something decisive about this, we need a fuller account of the demandingness of rational requirements.

However this question is settled in the end, we are left with the interesting, and perhaps surprising, conclusion that theoretical rationality, or at least that part of it which concerns consistency, is in fact normative. And, this is so even if we make a conceptual distinction between rationality and normativity. Reasons for belief and the rationality of belief both share a deep underlying regulatory conceptual framework.

In the past it has been considered desirable to try to build a theory of practical rationality from our understanding of theoretical rationality, the latter providing a model, at least structurally, for the former. The prospects for developing a strategy to show that practical

rational requirements are normative using a parallel model to that employed for theoretical rationality are mixed at best. The foundational role that evidence plays in giving us both reasons for belief and in giving us theoretical rational requirements is not obviously matched by anything in practical rationality. Whether an appeal to ideals about our mental life unites practical and theoretical rationality remains to be seen.[41]

[41] This paper in its final form has come into being due to comments from a number of philosophers. Particularly helpful were John Broome, Pascal Engel, Daniel Laurier, Kevin Mulligan, Jessica Pepp, Philip Pettit, Wlodek Rabinowicz, Toni Rønnow-Rasmussen, Robert Stephens, Asbjørn Steglich-Petersen, Johannes Stern, Sarah Stroud, and an anonymous referee for this volume. I received valuable feedback in a group setting at the Higher Philosophy Seminar at the University of Lund and from those in attendance at the Danish Philosophical Society Workshop in Epistemology.