Wide or Narrow Scope?

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This paper is a response to 'Why Be Rational?' by Niko Kolodny. Kolodny argues that we have no reason to satisfy the requirements of rationality. His argument assumes that these requirements have a logically narrow scope. To see what the question of scope turns on, this comment provides a semantics for 'requirement'. It shows that requirements of rationality have a wide scope, at least under one sense of 'requirement'. Consequently Kolodny's conclusion cannot be derived.

1. Introduction

In his major paper 'Why be rational?' (2005), Niko Kolodny argues for the thesis that you have no reason to satisfy the requirements of rationality. His main argument is founded on the following claim, which much of the paper is devoted to defending:

(N) Necessarily, if you believe you ought to *X*, then rationality requires you to intend to *X*.

These are Kolodny's words (p. 528), except that I have made four changes. I have added 'necessarily' to the front of (N), to make it clear that (N) describes an entailment rather than a contingent connection. (Throughout this comment, I take 'if' to stand for a material conditional.) To save space, I have changed 'have conclusive reason' to 'ought' and elided a 'that'. And I have changed 'one' to 'you' for the sake of friendliness. I do not think Kolodny will mind these changes.

On the basis of (N), Kolodny argues against what he calls 'the reasons claim' (p. 539). In my terminology, the reasons claim is:

(R) Necessarily, if rationality requires you to *F*, then you ought to *F*.

Kolodny's main argument against (R) runs as follows. Suppose (R) were true. From it together with (N) we could derive:

(B) Necessarily, if you believe you ought to *X*, then you ought to intend to *X*.

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But, says Kolodny, this could not be so. It would be an incredible sort of bootstrapping. Suppose it is not the case that you ought to *X*; suppose even that you ought not to *X*. But suppose you believe falsely that you ought to *X*. According to (B), your belief would entail that you ought to intend to *X*. But Kolodny thinks it cannot entail that: since you ought not to *X*, it is not credible in general that you ought to intend to *X*. Because he has previously argued that (N) is true, he concludes that (R) is false.

In a footnote (p. 539), Kolodny argues that the same bootstrapping argument, also premised on (N), will work against this weaker version of the reasons claim:

(RL) Necessarily, if rationality requires you to *F*, then you have a *pro tanto* reason to *F*.

The conclusion that (R) and (RL) are false amounts to Kolodny's general thesis that you have no reason to satisfy the requirements of rationality. The bootstrapping argument constitutes the main ground of this thesis. It depends on the truth of (N).

(N) seems plausible because it entails that akrasia is irrational. I take akrasia to be the state of believing you ought to do something whilst not intending to do it. If you are in this state, then you are irrational according to (N), because you are failing to intend something that rationality requires you to intend. (By 'irrational' I mean not rational.) It is controversial whether akrasia is indeed irrational. But in this comment I shall assume it is. Kolodny implicitly does so too; that is common ground between us.

Kolodny mentions an alternative principle, which also entails that akrasia is irrational:

> Necessarily, rationality requires you either not to believe you ought to *X*, or to intend to *X*.

The wording is again Kolodny's (p. 527), except that I have made the same changes as before. I prefer to express this principle in the equivalent form:

(W) Necessarily, rationality requires of you that, if you believe you ought to *X*, you intend to *X*.

(W) says directly that rationality requires you not to be akratic.

The difference between (N) and (W) is that 'rationality requires' has a wider scope in (W) than in (N). (W) does not support the bootstrapping argument. So the choice between (N) and (W) is crucial for

Kolodny's conclusion that you have no reason to satisfy the requirements of rationality. Kolodny assumes that either (N) or (W) is true. He argues that (W) is false, so (N) is true. I too shall assume one or the other is true.[1] I shall express a preference for (W), but I shall not deny (N). However, I shall argue that Kolodny is not entitled to his conclusion that you have no reason to satisfy the requirements of rationality.

2. The semantics of requirements

How can we decide between (N) and (W)? Only by developing a semantic theory, I think. That seems inevitable when the question at issue is the logical structure of requirements. We need to find a semantics that captures the meaning of 'rationality requires'. Since this phrase is rarely used outside philosophy, we have some choice over the meaning we assign it. But we are not free to give it any meaning we choose. 'Rationality' and 'requires' have their own natural meanings, which constrain the meaning of their combination. We need to find a semantics that respects the natural meanings, and is satisfactory in other ways.

As it happens, 'rationality' has two different meanings, and so consequently does 'rationality requires'. First, 'rationality' can be the name of a property that a person may possess. If we use it in that sense, to say that rationality requires you to F is to say that your Fing is a necessary condition for you to possess the property of rationality. This is to treat 'rationality requires' on the model of 'survival requires'. 'Survival requires you to eat' means that your eating is a necessary condition for you to possess the property of survival. When 'rationality requires' is used this way, I shall say it has the 'property sense'.

[1] Actually, I think neither is exactly true. I believe this elaborated version of (W):

> Rationality requires of N that, if N believes at t that she herself ought that p, and if N believes at t that p is so if and only if she herself intends at t that p, then N intends at t that p.

This schema uses the compound 'she herself' rather than simply 'she' to make it clear that the pronoun is reflexive (Castañeda 1968), as it plainly has to be. The ungrammatical 'ought that' is my own way of specifying that the ought is owned by N, as it plainly has to be. Suppose, say, that N believes she herself ought to receive more recognition for her work, but does not believe this ought is owned by her herself. (Instead, she believes other people ought to give her more recognition.) Then she might be rational even if she does not intend to receive more recognition for her work. The second condition included in my formula is needed for the following reasons. First, if N thinks p is true anyway, whether or not she herself intends it—for instance, if she thinks that she herself ought to keep breathing but that she will keep breathing even without intending to—she can be rational without intending that p, even if she thinks that she herself ought that p. Second, if N thinks that the truth of p is beyond her control, she can be rational even if she does not intend that p and yet believes that she herself ought that p.

Alternatively, 'rationality' can be the name of a system of rules, demands or—most accurately—requirements. Rationality in this sense is analogous to the law. It may be called a 'code'. 'The law requires you to vote' means that the code of law contains the requirement that you vote. 'Rationality requires you not to have contradictory beliefs' means that the code of rationality contains the requirement that you do not have contradictory beliefs. When 'rationality requires' is used this way, I shall say it has the 'code sense'.

I think the code sense is more natural that the property sense, and I shall adopt it. I think this too is common ground between Kolodny and me. Kolodny says that rational requirements are 'local', and by this he means they are not concerned with your having, globally, the property of rationality (p. 516). I think my semantic structure reflects his idea.

Here is a way to formalize it.[2] There is a set of worlds. A proposition has a truth-value at each world. The truth-values at each world respect the propositional calculus. For any proposition p, 'Necessarily p' is true at every world if and only if p is true at every world. For each world w there is a set $R(w)$ of propositions that specify what rationality requires of you at w. 'Rationality requires of you that p' is true at a world w if and only if p is a member of $R(w)$. The function R from worlds to sets of propositions is the code of rationality for you.

This function is implicitly indexed to you. Rationality requires different things of different people. It requires of you that you do not believe there are nine planets and also believe there are only eight planets. It requires of George Bush the different proposition that George Bush does not believe there are nine planets and also believe there are only eight planets. The propositions in $R(w)$ specify what rationality requires of *you*.

I shall use 'rational' as short for 'fully rational'. The proposition 'You are rational' is true at a world w if and only if all the requirements of rationality that apply to you at w are satisfied at w. More exactly: 'You are rational' is true at w if and only if, for every p in $R(w)$, p is true at w. To say you are rational is to say you have the property of rationality. So I am introducing the property of rationality into the semantics, but I am defining it in terms of the code of rationality. What rationality requires of you in my sense—the code sense—is given by the code and not by the property. Even if something is a necessary condition for you

[2] Krister Bykvist pointed out to me that my semantics resembles the semantics for 'ought' described by Bas van Fraassen (1973). In effect, van Fraassen's semantics is mine, with the added condition that if p is in $R(w)$, so is any consequence of p.

to be rational, it does not follow that rationality requires it of you, as it would if I was using the property sense.

As it stands, this semantic structure is extremely general. It leads to no logic of requirements. If we choose, we can inject some logic by imposing constraints on the structure of the code of rationality. I shall mention a constraint that I favour in section 4.

This semantics allows requirements to be conditional in more than one way. For some pair of propositions p and q, it may be the case that rationality requires q of you at all worlds where p is true. That is: q belongs to $R(w)$ whenever p is true at w. In that case, it is necessarily true that, if p, then rationality requires of you that q. Here we have a narrow-scope conditional requirement.

Alternatively, for some pair of propositions p and q, it may be the case that at all worlds rationality requires of you the material conditional proposition that if p then q. That is: $p \rightarrow q$ belongs to $R(w)$ for all w. In that case, it is necessarily true that rationality requires of you that if p then q. Here we have a wide-scope conditional requirement.

Take p to be 'You believe you ought to X' and q to be 'You intend to X'. Then (N) and (W) in section 1 are the corresponding narrow-scope and wide-scope conditional requirements. So I can now set the question of this paper within the formal framework. Is the connection between believing you ought to X and intending to X best formulated using a narrow-scope or a wide-scope conditional requirement?

3. The property of rationality

There is less difference between these alternatives than one might think. Perhaps the most important question a system of rational requirements needs to settle is whether you are rational—have the property of rationality. It turns out that the answer to this question is unaffected by the choice between narrow and wide scope. The proposition that you are rational is the same whichever way a conditional requirement is formulated. Either way, you are rational at exactly the same worlds.

To put this more precisely, take a code of rationality that contains a narrow-scope conditional requirement, and change that requirement to the corresponding wide-scope one, leaving the rest of the code unchanged. This means that, for some pair of propositions p and q, the original code includes q as a required proposition at all worlds where p is true, whereas the altered code includes $p \rightarrow q$ as a required proposition at all words. But in all other respects the two codes are the same.

Then the proposition that you are rational is unaltered by this change. That is proved in the appendix.

So we cannot decide between the wide-scope and narrow-scope formulations by considering when you have the property of rationality. The two formulations agree about that. This does not mean they agree about everything. The property of rationality fully determines what rationality requires of you in the property sense, but not what it requires of you in the code sense, which I have adopted. In the code sense, the wide-scope and narrow-scope formulations agree about the property of rationality, but they disagree in other ways.

4. Conflicts within rationality

For one thing, the narrow-scope formulation is more liable than the wide-scope one to imply that there are conflicts within rationality.[3] This leads me to prefer the wide-scope formulation.

(N) provides an example. Suppose you believe you are facing a deontic dilemma: you believe you ought to *X* and also believe you ought not to *X*. Then, according to (N), rationality requires you to intend to *X* and rationality requires you to intend not to *X*. I take it for granted that rationality requires you not to have contradictory intentions, so rationality requires you not both to intend to *X* and intend not to *X*. You therefore find yourself under three requirements that cannot be satisfied together. (N) implies that conflicts are possible among the requirements of rationality. This is not what we should expect of rationality; it should not conflict with itself.

You are under requirements that cannot be satisfied together. This does not mean it is impossible for you to be rational; (N) does not have such a strong consequence as that. The requirements that apply at the actual world cannot be satisfied together, but there may be other worlds where all the requirements that apply at those worlds are satisfied.

Since at the actual world you are under conflicting requirements, at least one of those requirements is inevitably not satisfied. Therefore, by the definition of rationality, you are not rational. This is not a particular consequence of the narrow-scope formulation (N); even if we switched to the wide-scope formulation (W) we would reach the same conclusion. That is guaranteed by the theorem proved in the appendix: when one formulation entails you are irrational, so does the other. Either way, so long as you believe you ought to *X* and also believe you ought not to *X*, you are irrational. This does not mean rationality speci-

[3] Kolodny (p. 529, n. 22) reports that Glenn Ross put a similar objection to him.

fically requires you not to have this pair of beliefs. It means that if you have this pair of beliefs, you must be failing to satisfy some requirement or other of rationality.

Given that you are irrational, you might think a conflict within rationality cannot be avoided. So you might think I should not object to (N) for implying there is one. But just because you are in an irrational state, that does not mean rationality can be expected to impose conflicting requirements on you. We should expect rationality to require you to get out of your irrational state, not to get in deeper, into the further irrationality of having contradictory intentions.

The wide-scope formula (W) avoids this complaint. According to (W), rationality requires of you that, if you believe you ought to *X*, you intend to *X*, and it also requires of you that, if you believe you ought not to *X*, you intend not to *X*. Even when we add that rationality requires you not both to intend to *X* and intend not to *X*, it remains possible for you to satisfy all three requirements. One way to do so is by not believing you ought to *X*, another is by not believing you ought not to *X*. Since, actually, you believe both these things, you do not actually satisfy all three requirements. But it is possible for you to do so.

The upshot is that (W) is more satisfactory than (N) in this respect. To generalize, I favour adding to my semantic system a constraint on a code of rationality that rules out rational conflicts. We should add the constraint that all the requirements of rationality that apply at any world can be satisfied together. That is to say, for any w, there is a world w' such that p is true at w' for all p in $R(w)$. A code that contains (N) will violate this constraint, whereas a code that contains (W) may satisfy it. For this reason I prefer (W) to (N).

5. Kolodny's argument

Kolodny on the other hand prefers (N) to (W). Indeed, he thinks (W) is false. The core of his argument seems to be this (pp. 518–21).

He points out that, when you are under a wide-scope requirement, there are two ways of satisfying it. In the case of (W), one way is by intending to *X*, the other is by not believing you ought to *X*.

Then he points out that are not two processes of reasoning by means of which you can bring yourself to satisfy the requirement (W). If you believe you ought to *X*, you can reason on the basis of that belief to bring yourself to intend to *X*. This is controversial, but Kolodny and I agree about it, so I shall let it pass. On the other hand, if you do not intend to *X*, you cannot reason on the basis of that non-intention to bring yourself not to believe you ought to *X*. Again, I agree. So you can reason in one direction but not the other.

Kolodny draws the conclusion that (W) is not a genuine requirement of rationality. How does that follow? The argument cannot be simply this: if (W) is a requirement, there are two ways of satisfying it, but there are not two ways of satisfying it, so (W) is not a requirement. That argument would involve a fallacious equivocation on 'ways'. There are two ways of satisfying (W) in the sense in which there are two ways in which a material conditional can be true: by its antecedent's being false or by its consequent's being true. But there are not two ways of satisfying (W) in the different sense that there are two processes of reasoning by means of which you could bring yourself to satisfy it. There is no contradiction there.

So what is the argument? In trying to understand it, I meet a severe difficulty. Kolodny insists that he is not arguing against (W) as a 'state-requirement' but as a 'process-requirement'. He explains these terms as follows: state-requirements 'ban states in which one has conflicting attitudes' and process-requirements 'say how, going forward, one is to form, retain, or revise one's attitudes so as to avoid or escape such conflict-states' (p. 517). But the formula (W) mentions only states, not processes. It says nothing about how, going forward, one is to form, retain or revise one's attitudes. So I do not know how to understand (W) as a requirement on processes. Furthermore, none of the formulae for requirements of rationality set out in Kolodny's paper mention processes; they all mention states only. So I can get no guidance from them.

So far as processes are concerned, Kolodny and I agree. We agree that a process of reasoning can take you from believing you ought to *X* to intending to *X*, but no process of reasoning can take you from not intending to *X* to not believing you ought to *X*. There is only one process of reasoning, not two, that can bring you to establish the correct relationship between this belief and this intention. In rejecting (W) as a process-requirement Kolodny evidently means to draw a further conclusion beyond this point of agreement. But I do not know what that conclusion is, nor what his argument is.

6. Process requirements

I do know that Kolodny favours (N) as a process-requirement. (N) is the key to his paper. From it, through the bootstrapping argument, he derives his main conclusion that we have no reason to satisfy the requirements of rationality. I shall therefore do my best to reconstruct (N) as a process-requirement.

Evidently, the reconstructed version must mention a requirement on a process rather than on a state. It is also essential that it supports the bootstrapping argument. So the reconstructed version of (N) must have the form:

> Necessarily, if you believe you ought to *X*, then rationality requires you to *G*

where *G* is a process that supports the bootstrapping argument.

G supports the bootstrapping argument only if the formula:

> Necessarily, if you believe you ought to *X*, then you ought to *G*

which corresponds to (B) in section 1, implies incredible bootstrapping. What sorts of processes give rise to incredible bootstrapping? Some do not. For instance, suppose '*G*' is: 'do some reasoning based on the premiss that you ought to *X*'. There would be no incredible bootstrapping there. It is not incredible that, necessarily, if you believe you ought to *X*, then you ought to do some reasoning based on the premiss that you ought to *X*.

But now suppose '*G*' is: 'do some reasoning that results in your intending to *X*'. That might give rise to incredible bootstrapping. It might be incredible that, necessarily, if you believe you ought to *X*, then you ought to do some reasoning that results in your intending to *X*. Suppose you believe you ought to *X* but actually you ought not to *X*. Could it be that you ought to go through a process that results in your intending to *X*? That might be incredible.

I do not insist it is incredible. But if Kolodny is to defend his thesis that you have no reason to satisfy the requirements of rationality, he must identify *some* process that gives rise to incredible bootstrapping. I assume that intending to *X* will have to be an ingredient in any such process—that no process gives rise to incredible bootstrapping unless it results in your intending to *X*. I cannot see that incredible bootstrapping could arise in any other way.

Now pay attention to time. Whatever the process *G* is, it cannot begin before you believe you ought to *X*. Since any process takes time, if you go through a process that results in your intending to *X*, you will intend to *X* at some time after you begin it. So, taking account of time, the reconstructed version of (N) will have the form:

(NP) Necessarily, if you believe at *t* that you ought to *X*, then rationality requires you to *G*

where *G* is a process such that, necessarily, if you *G* you intend at a time later than *t* to *X*.

But (NP) cannot be true. Suppose you believe at some time *t* that you ought to *X*, and suppose that at that time you also intend to *X*. But suppose that immediately afterwards you stop believing you ought to *X* and simultaneously stop intending to *X*. You might be perfectly rational; your attitudes might change because of new information, for example. Since you are perfectly rational, you cannot be failing to do anything rationality requires of you. But according to (NP), you are failing to do something rationality requires of you. According to (NP), rationality requires you to go through some process such that, necessarily, you intend at a time later than *t* to *X*. But evidently you do not go through any such process, since at no time later than *t* do you intend to *X*. (NP) is therefore false.

I conclude that, if (N) is reconstructed to incorporate a process, it cannot both be true and support the bootstrapping argument. On the other hand, unreconstructed (N) might support the bootstrapping argument and, for all I have said, it might be true. So I think Kolodny's appeal to processes is an unproductive detour.

7. Conclusion

I am considering the choice between (N) and (W). Kolodny denies (W), but I have not found a good argument against (W) in his paper. I have expressed a preference for (W), but I have not denied (N).

Surely each of (N) and (W) is either true or false, so how can the choice between them be a matter of preference? Because we are choosing a precise meaning to assign to the expression 'rationality requires'. In section 2 I adopted what I called the 'code sense' for this expression. But even within the code sense it turns out that there are two ways of formulating conditional requirements of rationality. We can think of each as assigning a different sub-sense to 'rationality requires'. Given one of these sub-senses, (N) is true and (W) false; given the other, (W) is true and (N) false. It might have turned out that one or the other sub-sense was unacceptable; it might have turned out to be a serious distortion of our ordinary meaning, or it might have led to unacceptable conclusions in some other way. That remains possible, but I have so far found no indisputable basis for rejecting either sub-sense.

So, although I favour (W), I am willing to say that (N) is true given one sense of 'rationality requires'. Kolodny's bootstrapping argument is founded on (N). If the argument is sound, he is entitled to conclude that you have no reason to satisfy the requirements of rationality *in this sense*. However, given another sense of 'requires', (W) is true and (N) is not. (W) does not support the bootstrapping argument. So Kolodny is not entitled to conclude that you have no reason to satisfy the requirements of rationality in this alternative sense.

For all I know, the position might be this. If you believe you ought to X, in one sense rationality requires you to intend to X, but you have no reason to intend to X because you have no reason to satisfy the requirements of rationality in this sense. However, in another sense, rationality requires of you that, if you believe you ought to X, you intend to X. And you do have a reason to satisfy the requirements of rationality in this sense, so you have a reason to satisfy the conditional that, if you believe you ought to X, you intend to X. Kolodny has not succeeded in eliminating this possibility.

He is therefore not entitled to his main conclusion that you have no reason to satisfy the requirements of rationality.[4,5]

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Appendix

Theorem. Let R_1 and R_2 be two codes that are the same except that, for one pair of propositions p and q, $q \in R_1(w)$ for all w at which p is true (and this may not be so for R_2) whereas $(p \rightarrow q) \in R_2(w)$ for all w (and this may not be so for R_1). Then 'You are rational' is true under R_1 at exactly those worlds where it is true under R_2.

Proof. First, take a world w where 'You are rational' is true under R_1. I shall prove it is also true under R_2. Since w satisfies all the requirements in $R_1(w)$, and $R_2(w)$ contains all the same requirements apart from the

[4] I am myself agnostic about this conclusion (see Broome 2005). The argument of this comment is elaborated in Broome 2007.

[5] My thanks to Richard Christian, Jonathan Dancy, Dorothy Grover, Andrew Reisner, Nick Shackel, Nick Shea, and most particularly to Niko Kolodny for their help. While writing this note I was supported by a Major Research Fellowship from the Leverhulme Foundation. I thank the Foundation for its generosity.

single one that differs, w satisfies all the requirements in $R_2(w)$ apart from, possibly, that final one.

Either p is true at w or it is not. If it is, then q is in $R_1(w)$. Since 'You are rational' is true under R_1, q is true at w. Therefore $(p \rightarrow q)$ is true at w. On the other hand, if p is not true at w, then $(p \rightarrow q)$ is automatically true at w. Either way, $(p \rightarrow q)$ is true at w. But $(p \rightarrow q)$ is the final requirement in $R_2(w)$. So w satisfies all the requirements in $R_2(w)$. 'You are rational' is therefore true at w under R_2.

Next, take a world w where 'You are rational' is true under R_2. I shall prove it is also true under R_1. Since w satisfies all the requirements in $R_2(w)$, and $R_1(w)$ contains all the same requirements apart from the single one that differs, w satisfies all the requirements in $R_1(w)$ apart from, possibly, that final one.

Because $(p \rightarrow q)$ is in $R_2(w)$, and 'You are rational' is true at w under R_2, $(p \rightarrow q)$ is true at w. Either p is true at w or it is not. If it is, then q is in $R_1(w)$: q is required at w according to R_1. And this requirement is satisfied; q is true at w because both p and $(p \rightarrow q)$ are true there. On the other hand, if p is not true at w, there is no final requirement in $R_1(w)$ to be satisfied. Either way, w satisfies all the requirements in $R_1(w)$. 'You are rational' is therefore true at w under R_1.

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