

What Carroll's Tortoise Actually Proves

Jan Willem Wieland*

"Here the narrator, having pressing business at the Bank, was obliged to leave the happy pair." (Carroll 1895)

Abstract

Rationality requires us to have certain propositional attitudes (beliefs, intentions, etc.) given certain other attitudes that we have. Carroll's Tortoise repeatedly shows up in this discussion. Following up on Brunero (2005, this journal), I ask what Carroll-style considerations actually prove. This paper rejects two existing suggestions, and defends a third.

Keywords: rationality, attitude, obligation, regress, Carroll, tortoise

[*Ethical Theory & Moral Practice* 16: 983-97, 2013]

1. The renewed Tortoise

Suppose I intend to publish a paper, believe that publishing a paper requires me to stay home this summer and write one, yet refuse to intend to stay home and write one (while sticking to my initial intention and belief). I am irrational. To be rational is at least to have a consistent set of propositional attitudes. Yet, my three attitudes just listed are not clearly inconsistent. An extra story is needed that clarifies what sort of attitudes cannot be combined on pain of irrationality.

A renewed version of Carroll's Tortoise repeatedly shows up in this discussion. Following up on Brunero (2005), I ask what Carroll-style considerations actually prove in the rationality debate. Before explaining the renewed Tortoise, let me recall Carroll's initial puzzle.

Suppose you and I are debating the issue whether Socrates is unsuited for a normal job, and you are making the following argument:

- (a) Socrates is a philosopher.
- (b) If Socrates is a philosopher, then he is unsuited for a normal job.
- (z) Socrates is unsuited for a normal job.

Now, suppose I am willing to accept (a) and (b), but not (z) just because I deny that (z) follows logically from (a) and (b) (so I am taking up the role of the Tortoise here). Furthermore, suppose that in order to demonstrate that (z) follows logically from those premises, you add the following, additional premise to the argument:

(c) If (a) and (b) are true, then (z) is true.

Still, I am unsatisfied. This time I am willing to accept (a), (b) *and* (c), but not (z) just because I deny that (z) follows logically from (a), (b) and (c). To demonstrate that (z) follows logically given those premises, as the story goes, you add yet another premise to the argument:

(d) If (a), (b) and (c) are true, then (z) is true.

And so on.

Notoriously, Carroll himself did not draw any conclusion from this regress (cf. the motto of this paper). Thus commentators have attempted to identify what the Tortoise's lesson actually was. The general consensus here is two-fold.¹ On the one hand, the negative lesson is that if you add ever more premises to an argument (as above), then you will never demonstrate that its conclusion follows logically. On the other hand, the positive lesson is that rules of inference, rather than premises of the form 'if premises such and such are true, then the conclusion is true', will do the job. In the example above, (z) follows logically from (a) and (b) thanks to the rule of inference Modus Ponens (rather than the premises (c), (d), etc.):²

(R) p, if p then q / q.

Moreover, once (R) is in place, it is thought, the regress disappears and all is solved. Unfortunately, even though the regress problem does disappear in Carroll's initial case, it can be shown that it does not vanish generally. For consider a slightly different piece of reasoning:

- (a) I believe that Socrates is a philosopher.
- (b) I believe that [if Socrates is a philosopher, then he is unsuited for a normal job].

¹ For classic statements of this thought, cf. Ryle (1950) and Thomson (1960). Main subsequent commentaries include Stroud (1979) and Smiley (1995).

² Throughout the paper, 'p' and 'q' are schematic letters to be replaced with full declarative sentences, and 'φ' and 'ψ' are to be replaced with verbs.

(z) I ought to believe that Socrates is unsuited for a normal job.

This time, I do not reason on the basis of propositional contents, but on the basis of my attitudes towards such contents (beliefs in this case). The idea is that if I have the beliefs described by (a) and (b), then it follows that I ought to adopt a further belief described by (z). I ought to adopt this belief in order to be rational and have a consistent set of attitudes. If I deny that I have to believe that Socrates is unsuited for a normal job, then I am irrational.

A similar Tortoise problem could be raised here. Suppose I accept (a) and (b), yet deny (z). How to show that (z) follows from the premises I accept? Why do I have an obligation to have a certain belief given two other beliefs that I have? Unfortunately, the same solution that we used in Carroll's initial case is not immediately available. The reason is that, in this case, no classical rule of inference (such as Modus Ponens) will take us from (a) and (b) to (z). So, even if we assume that all classical rules of inference are in force, this renewed Tortoise problem remains unsolved. How is it the case that we ought to have certain propositional attitudes (beliefs, intentions, etc.) given certain other attitudes that we have?

Nevertheless, commentators have thought that Carroll-style considerations can still tell us something about this new problem. So the question is: what do Carroll-style considerations prove in the rationality debate? Against the existing suggestions, I will argue that they neither highlight a premise/rule confusion, nor an internal/external confusion. Carroll's Tortoise shows something else here. Before explaining this (Sect. 4), I shall make a number of assumptions explicit in order to formulate the problem just sketched more precisely (Sect. 2), and introduce the main solutions to it (Sect. 3). As we shall see, Carroll's Tortoise proves not that one of those solutions is false. Rather, Carroll's Tortoise imposes a significant restriction on all of them.

2. Stage setting

Here are five assumptions that will not be questioned in the rest of the paper. They will allow me to formulate the problem sketched in the previous section more precisely.

First assumption: In order to keep the renewed Tortoise problem clearly distinct from the initial one, I will assume that all classical rules of inference are in force. This implies, as before, that we do not need to invoke the following premise in order to obtain 'q' from the premises 'p' and 'if p, then q':

- (c) If p and [if p, then q], then q.

As noted, however, in the following case (z) does not follow from (a) and (b) by classical rules:

Modus Ponens Consistency

- (a) S believes that p.
(b) S believes that [if p, then q].
(z) S ought to believe that q.

Nevertheless, (z) does follow classically from (a) and (b) plus the additional assumption that we ought to believe the consequences of the propositions we believe.³ That is:

- (c) If S believes that p, and that [if p, then q], then S ought to believe that q.

Importantly, this does not mean that (c) *must* be part of one's reasoning, only that it *can* be part of it. As we shall see in the next section, there are solutions to the renewed Tortoise puzzle that do not make use of (c) (in fact, only one of the four solutions that I shall discuss does).

Second assumption: I will assume that all reasoning regarding one's attitudes concludes to obligations (rather something else). This assumption needs some words. To begin with, all reasoning regarding one's attitudes will be called 'attitude reasoning'. The difference between ordinary and attitude reasoning is exemplified by the two argument patterns just described. Ordinary reasoning concerns what is or should be the case. Attitude reasoning, by contrast, is only indirectly concerned with this, and is to cover all cases of reasoning where one is figuring out what propositional attitudes one should (or may) have. Attitude reasoning covers cases which concern figuring out what beliefs one should have, as well cases which concern figuring out what intentions one should have.⁴ While Modus Ponens Consistency is a reasoning pattern of the former sort, the following is one of

³ It may be controversial to say that we ought to believe all the consequences of the propositions we believe (even if they are obvious). Less controversial would be to conclude from (a) and (b) to: S is permitted to believe that q and prohibited from disbelieving that q. Yet, for simplicity I shall stick to the obligation formulation.

⁴ Both beliefs and intentions are propositional attitudes and may have the same content. Yet, as Broome (2002: §2) points out, believing that p differs from intending that p in at least the following sense: the former attitude is one of taking it as true (or at least plausible) that p, whereas the latter attitude is one of making it true that p.

the latter (further reasoning patterns of both varieties will be provided in due course):

Means/End Consistency

- (a) S intends to ϕ .
- (b) S believes that ϕ -ing requires S to ψ .
- (z) S ought to intend to ψ .

Here is the instance described at the very start of this article:

- (a) I intend to publish a paper.
- (b) I believe that publishing a paper requires me to stay home.
- (z) I ought to intend to stay home.

Not everyone agrees that practical reasoning like this concludes to *obligations* regarding one's attitudes, rather than directly to actions or intentions (for an overview of these options, cf. Streumer 2010). That is, one may alternatively conclude, in this case, to 'I intend to stay home' or even to 'I stay home' rather than to 'I ought to intend to stay home'. My main reason for the obligations variant is briefly the following. Failing to act or failing to adopt intentions may have all sorts of explanations (for example, one may be physically hindered to perform the given actions, or mentally unable to adopt the given intentions), yet denying one's obligations regarding one's attitudes is always irrational.

Third assumption: I assume, without explicitly repeating it, that all obligations in (z) could be so-called wide-scope. That is, I should adopt certain attitudes *if* I stick to my initial attitudes. Consequently, (z) can be resisted by retracting (a) or (b) in the course of one's reasoning. In the Modus Ponens Consistency example, for instance, if I do not wish to be obliged to believe that Socrates is unsuited for a normal job, then I could still retract my belief that Socrates is a philosopher or my belief that if he is a philosopher, he is unsuited for a normal job. Or in the Means/End Consistency example, I should either accept my obligation to intend to stay home, or retract my initial intention to publish, or retract my belief that publishing requires me to stay home.⁵

⁵ Of course, complex issues attach to this wide-scope phenomenon that cannot be discussed here. For an overview, cf. Way (2010). For example, is it really rational to refuse to intend to stay home by sticking to one's intention to publish and dropping one's belief that publishing requires one to stay home? Also, to what extent are we psychologically free, even if entitled, to retract intentions and beliefs in the course of our reasoning?

Fourth assumption: I assume that the ‘ought’ in (z) is not the all-things-considered ought. It says that one ought to have certain attitudes given a specific set of other attitudes that one has. It does not say that one ought to have certain intentions given sets of attitudes other than those considered, nor that one ought to have certain intentions generally (or all-things-considered). For example, if I intend to publish a paper, believe that publishing requires me to bribe the editors-in-chief, then I ought to bribe the editors-in-chief. I ought to do this in order to be rational (i.e. to have a consistent set of attitudes), yet not in order to behave correctly in any other sense.

The problem of rationality that I am addressing in this paper should be understood in terms of the assumptions so far: Why should a given subject accept certain obligations regarding her attitudes (beliefs, intentions, etc.) given a certain set of other attitudes that she has? Why do I have the obligation to believe that Socrates is unsuited for a normal job given two of my other attitudes? Why do I have the obligation to intend to stay home given two of my other attitudes? Surely, the triads (a), (b) and $\sim(z)$ look inconsistent, yet they are not inconsistent in any straightforward, classical sense. No contradiction follows, for example, from having the intention to publish plus the belief that publishing requires one to do certain things, while denying that one ought to intend to do that things.

This question is important. Clearly, there are correct and incorrect ways to reason on the basis of one’s attitudes. We must accept some, yet not all sorts of obligations given the attitudes that we happen to have. I should have the intention to stay home given my attitudes. Yet the following pattern should for instance not be taken as to provide correct instances: S’s evidence supports the belief that p (i.e. all S’s beliefs so far are coherent with the belief that p, among other things); therefore, S ought to disbelieve that p. For if my evidence supports the proposition that it is summer, then of course I am under no obligation to disbelieve that it is summer.

Fifth and last assumption: following Brunero (2005), I assume that all forms of attitude reasoning require the same sort of solution. Thus, whatever kind of solution gets you to accept the obligation to believe in Modus Ponens Consistency, gets you to accept the obligation to intend in Means/End Consistency.

3. Four solutions

In this section I will present a brief overview of four solutions to the problem just stated. I will explain them in terms of the Means/End Consistency case (but the solutions easily generalize):

- (a) S intends to ϕ .
- (b) S believes that ϕ -ing requires S to ψ .
- (z) S ought to intend to ψ .

So what validates the step from (a) and (b) to (z)? The four upcoming solutions may be called External Premise, Internal Premise, External Rule and Internal Rule respectively. I shall also identify a quick worry for the first three. They show why one should not easily be satisfied with them. That is, they will serve as an introduction to the next solution, yet will play no further role in my discussion on Carroll's Tortoise later on.

Solution 1 (External Premise): S should accept (z) in the sense that S is logically committed to (z) if she sticks to (a), (b) and the extra premise (c):

- (c) If S intends to ϕ , and believes that ϕ -ing requires S to ψ , then S ought to intend to ψ .

A quick problem: why should S accept (c) as a premise in her reasoning if it is not among her beliefs?

Solution 2 (Internal Premise): S should accept (z) on the basis of (a), (b) and the extra premise (c*), which is now internalised, i.e. among S's beliefs:

- (c*) S believes that [if S intends to ϕ , and believes that ϕ -ing requires S to ψ , then S ought to intend to ψ].

A quick problem: S is no longer committed to (z), as it does not follow logically from (a), (b) and (c*). There is no classic rule which takes you from (a), (b) and (c*) to (z).⁶

Solution 3 (External Rule): S should accept (z) on the basis of (a), (b), and the extra rule of inference (R) which is to be applied to (a) and (b):

- (R) S intends to ϕ ; S believes that ϕ -ing requires S to ψ / S ought to intend to ψ .

The difference with the previous solutions is that (R) is no premise, whether external or internal to S's beliefs, but a rule of inference. So (R) is to have the

⁶ On top of this, beliefs like (c*) are demanding, and presumably no-one besides philosophers ever entertained them. If so, only philosophers would have to deal with obligations regarding one's attitudes; which would be absurd.

same status as Modus Ponens and other rules of inference, and says that S is logically committed to (z) on the basis of (a) and (b).

A quick problem: by this solution there is to be an extra rule of inference for each and every pattern of reasoning. Here is a list of some important rules (adapted from Way 2010):

- S believes that p; S believes that [if p, then q] / S ought to believe that q. (Modus Ponens Consistency)
- S intends to ϕ ; S believes that ϕ -ing requires S to ψ / S ought to intend to ψ . (Means/End Consistency)
- S believes that p / S ought not to disbelieve that p. (Belief Consistency)
- S intends to ϕ ; S believes that S cannot both ϕ and ψ / S ought not to intend to ψ . (Intention Consistency)
- S believes that she should ϕ / S ought to intend to ϕ . (Enkrasia)

This list is only partial as it is easy to think of many more cases (just play around with the beliefs, intentions, obligations, permissions, etc.). Do we want to buy this explosion of inference rules?⁷ Surely we do not want to adopt this rule mentioned earlier: S believes that p / S ought to disbelieve that p. Hence, the challenge for External Rule proponents is to provide criteria that can tell us which rules are in force and which not. Moreover, as we shall see next, no such challenge or problem exists for Internal Rule proponents.

Solution 4 (Internal Rule): S should accept (z) on the basis of (a), (b), (R) and S's pro-attitude towards (R).

The advantage of this solution over the previous one is that blocks explosion. That is: not all possible rules of inference are supposed to be in force, but only those that S acknowledges. For S to have a pro-attitude towards (R) is for S more than just to reason in accordance with (R) (which might just be coincidental or a mere regularity). Rather, it is to let one's reasoning be governed by (R). Or again: it is a desire on S's part to comply with (R) and to apply it to (a) and (b). Pro-attitudes differ from beliefs at least in the following way: to believe (R) is to *regard* it as true that one ought to intend the means that one believes to be necessary to one's ends, while to

⁷ The number of patterns might be reduced if it can be shown that intentions reduce to a variety of beliefs. For example, suppose that my intention to publish a paper is nothing but the belief that I will publish a paper. In that case I could apply Modus Ponens Consistency instead of Means/End Consistency: (a) I believe that I will publish a paper; (b) I believe that [I will publish a paper only if I will stay home]; (z) I ought to believe that I will stay home. Surely the thesis that intentions involve, let alone reduce to, beliefs is controversial (cf. Setiya 2009: §5).

have a desire to comply with (R) is to *want* it to be true that one's attitudes are governed by this rule.

Now recall our main problem: why should a given subject accept obligations to adopt certain attitudes given other attitudes that she has? At this point we have four options at our disposal: two which suggest extra premises (one external, one internal), two which suggest extra rules (one external, one internal). Moreover, two of the four solutions introduce additional attitudes, namely beliefs or pro-attitudes (i.e. the internal solutions), and two of them do not appeal to such additional attitudes (i.e. the external solutions). The question is: can Carroll's Tortoise help us to see which solution is the right one?

Before turning to this question in the next section, I want to be explicit on what the four solutions solve (if they succeed), and what they leave unaddressed. The solutions do form a candidate answer to the question why we should accept certain obligations in order to be rational. However, they do *not* motivate why we should be rational in the first place, i.e. explain the value or importance of having consistent sets of attitudes.⁸ Or again: they say something on that which governs what sort of attitudes cannot be combined on pain of irrationality, but they do not say why these governing elements should be in place (i.e. why the premises would hold, or the rules be in force) apart from that.

4. Carroll's Tortoise

As said, commentators have attempted to identify what the Tortoise's lesson in the rationality debate actually was.⁹ They generally agree that something might go wrong as soon as we introduce extra factors that are to account for the transition from our given attitudes to our obligations. The thought is: if our actual attitudes do not suffice for obligations, then why suppose that additional factors would be able to explain this?

But the question is, of course, how this can be made precise. In the following I will demonstrate that this is a rather delicate issue, and that even

⁸ For this vexed issue, cf. Broome (2005) and Kolodny (2005).

⁹ Main pioneering applications of Carroll's Tortoise to practical reasoning are Blackburn (1995) and Schueler (1995). Below I shall mainly focus on Dreier (1997, 2001) and Brunero (2005). Further works in this area include Railton (1997), Lazar (1999), Wedgwood (2005), Jollimore (2005), Engel (2005), and Schwartz (2010). Importantly, some of these concern the internal vs. external reasons for action debate, rather than the rationality debate. Nevertheless, the parallel is quite close: where the latter speak of 'obligations', the former speak of 'motivating reasons'. Cf. also Sect. 4.2 below.

Brunero's (2005) analysis, i.e. the most detailed account to date, does not get the matter entirely right. To show this, let us consider the following three hypotheses. Carroll's Tortoise might demonstrate that:

- (H1) The solutions which introduce additional premises, rather than rules, are committed to a regress and hence fail.
- (H2) The internal solutions, which introduce additional attitudes, are committed to a regress and hence fail.
- (H3) The solutions which implicitly invoke additional obligations are committed to a regress and hence fail.

Hence, (H1) says that Carroll's Tortoise refutes the solutions Internal and External Premise (but not Internal or External Rule). (H2) says that she refutes the solutions Internal Premise and Internal Rule (but not External Premise or External Rule). And (H3), as I will explain, says that she refutes none of the four solutions, but only specific versions of them. Furthermore, the first two hypotheses (H1) and (H2) have been advanced in the literature, and in the following I will argue that only (H3) is correct.

4.1. Rule/premise

A common and widespread interpretation of Carroll's Tortoise suggests (H1), i.e. that it draws our attention to a premise/rule confusion. Here is a clear formulation of this line:

The lesson of Carroll's parable is that the refusal to accept a rule of inference cannot be compensated for by the addition of any number of premises – not even if one of these premises is an articulation of this rule of inference itself. (Schwartz 2010: 90)

As Brunero (2005: 560-1) shows in response to Railton (1997: 76-7), (H1) cannot be correct. Of course, in Carroll's initial case it is unhelpful to add extra premises (c), (d), etc. rather than to apply Modus Ponens directly to (a) and (b) (i.e. in order to obtain (z)):

- (a) p.
- (b) If p, then q.
- (c) If (a) and (b), then (z).
- (d) If (a), (b) and (c), then (z).
- ...
- (z) q.

Yet, once the classical rules such as Modus Ponens are in place, this same sort of solution does not work for the renewed puzzle. Of course, it is still possible to invoke rules of rationality, yet it is also possible to use premises instead. Consider my example:

- (a) I intend to publish a paper.
- (b) I believe that publishing a paper requires me to stay home.
- (z) I ought to intend to stay home.

In this case, I can obtain the obligation (z) from my attitudes (a) and (b) in at least two ways. First option: I could appeal to an extra premise 'For all instances of S, ϕ , ψ : if S intends to ϕ , and believes that ϕ -ing requires her to ψ , then S ought to intend to ψ ', and then derive (z) in a classical way (i.e. by the rules Universal Instantiation, Conjunction and Modus Ponens). Alternatively, I could invoke the rule of rationality 'S intends to ϕ ; S believes that ϕ -ing requires S to ψ / S ought to intend to ψ ', and derive (z) directly on the basis of this rule. Both options are regress-free, and so Carroll style-considerations cannot be used to favour the rule-option here as well.

Here is Brunero's own illustration of this point:

- (a) S's evidence supports the belief that p.
- (z) S ought to believe that p.

Again, we can obtain (z) in two different ways: we could either appeal to the extra premise that one ought to believe what one's evidence supports, or create a rule that validates the step from (a) to (z) (i.e. 'S's evidence supports the belief that p / S ought to believe that p', labelled by Brunero as '(H-E)').¹⁰ Nothing about Carroll's Tortoise makes the first option implausible, and so she cannot be used to dismiss the extra premise solutions. As Brunero puts it:

If the rules of logical inference are put into the premises, the pains of regress begin. But there is nothing wrong with putting (H-E) into the premises. It is precisely what the argument was missing!
(2005: 560)

Generally the objection to (H1) is that in many cases there is nothing wrong with adding premises to an argument. Sometimes, and especially in those

¹⁰ As Brunero himself notes, this case is slightly simplistic. Arguably, one has an obligation to believe what one's evidence supports regarding whether p only if one is going to have any opinion about whether p at all (and perhaps also only if one is not in bad evidential circumstances).

cases where the conclusion does not follow from the relevant premises on the basis of familiar rules of inference, it might well help to add extra premises. Moreover, one might suggest that pieces of attitude reasoning are exactly among such cases (because there are no classical rules which take us from initial attitudes to obligations of having further attitudes).

4.2. Internal/external

The second hypothesis (H2) states that Carroll's Tortoise draws our attention to an internal/external confusion. The basic idea is that whatever is to govern our attitudes may be something additional yet should not itself be among our attitudes, i.e. it should be external to them. Indeed: if our actual attitudes do not suffice for our obligations, then why suppose that additional attitudes (like beliefs and pro-attitudes, as Internal Premise and Internal Rule propose) are of any help? Here is a clear formulation of this line by Wedgwood (commenting on Railton 1997):

Practical reasoning takes us from antecedent beliefs, intentions, and desires to forming a new intention about what to do. For practical reasoning to do this, we need to exercise a capacity (or manifest a disposition) for reasoning of the relevant sort. Exercising this capacity cannot consist in our having any further beliefs, intentions, or desires – on pain of a regress of the same sort as that into which the Tortoise led Achilles. (2005: 467)

Next I will argue that (H2) cannot be right. First I will briefly explain the point in terms of Internal Premise, i.e. the view that we have obligations to accept certain attitudes given other attitudes that we have thanks to certain further beliefs. After that, I will explain why Carroll's Tortoise does not refute Internal Rule either. Consider again my example:

- (a) I intend to publish a paper.
- (b) I believe that publishing a paper requires me to stay home.
- (z) I ought to intend to stay home.

Now Internal Premise says that I have to accept (z) on the basis of (a), (b) and the following, further belief:

- (c) I believe that [if I intend to publish a paper, and believe that this requires me to stay home, then I ought to intend to me to stay home].

Although it is not clear how (z) is supposed to follow from (a), (b) and (c) (noted in Sect. 3), it can be pointed out that Internal Premise has no regressive consequences. The following variant of Internal Premise, in contrast, would have such consequences:

IR/1 S is obliged to adopt a new attitude x given other attitudes that she has only if S is obliged to adopt the additional belief that she ought to have x given those attitudes.

For if S is obliged to adopt an attitude (any attitude) only if she is obliged to adopt an additional belief, then she is equally obliged to adopt that additional belief only if she is obliged to adopt yet another additional belief, and so on. The regressive consequences of the upcoming cases will be spelled out in more detail, but the general idea seems clear.

Important here is that IR/1 is considerably stronger than Internal Premise itself, i.e. the view that merely says that S is obliged to adopt a new attitude x given other attitudes that she has only if S *has* the additional belief that she ought to have x given those attitudes. Thus, so long as IR/1 forms no essential part of Internal Premise, the latter is regress-free and does not fail for this reason. Moreover, this invalidates hypothesis (H2) which locates a problem in additional attitudes generally.

Next I will argue that this same problem (i.e. the problem that the internal solutions may well be regress-free) afflicts the defences of (H2) by respectively Dreier (1997, 2001) and Brunero (2005). Their main target is Internal Rule, rather than Internal Premise just discussed. Let us first consider Dreier's case:

- (a) Ann desires to go a good law school.
 - (b) Ann believes that by taking a prep course she will go a good law school.
 - (z) Ann has a motivating reason to take a prep course. (by (M/E) plus Ann's desire to comply with (M/E))
- (M/E) S desires to ϕ ; S believes that by ψ -ing S will ϕ / S has a motivating reason to ψ .

Internal Rule would say that Ann should accept that she has a motivation to take a prep course on the basis of (a), (b) and her desire to comply with the rule (M/E). The role of such desires, as I see it, is to authorize a rule of rationality (see Sect. 3). If one has a desire, in this case, to comply with (M/E) then one wants to organize one's attitudes in accordance with it. Now,

Dreier disagrees with Internal Rule's diagnosis, and holds that Ann can still refuse to be motivated to take a prep course:

Were she to desire to comply with (M/E), would she then be motivated to take the LSAT prep course? By hypothesis, Ann suffers from this failure of practical reason: she fails to be motivated by the acknowledged means to her desired ends. So adding a desire (complying with (M/E)) does not in her bring about the motivation to perform an acknowledged means to her end of doing well in the LSAT. (2001: 39)¹¹

Thus, Dreier reasons, if Ann's desire to go a good law school does not motivate her to take all the steps that she believes to be required or appropriate for this end (such as taking a prep course), then we should not expect Ann's additional desire to comply with (M/E) to help her in this.

In my opinion, this analysis is incorrect. Dreier says that Ann "fails to be motivated by the acknowledged means to her desired ends." Yet, the scenario does not say, and Internal Rule does not require, that Ann's additional desire to comply with (M/E) is among those acknowledged means to her desired ends, and hence it does not follow that she fails to be motivated by her additional desire to comply with (M/E).

Surely, the following assumption would be troublesome:

IR/2 Ann is motivated to ϕ , for any instance of ϕ , only if she is motivated to comply with (M/E) (or a rule quite like this).

By this, Ann is motivated to take a prep course only if she is motivated to comply with (M/E). Similarly, by IR/2 she is motivated to comply with (M/E) only if is motivated to comply with a rule quite like (M/E):

(M/E*) S desires to ϕ ; S believes that by ψ -ing S will ϕ ; S desires to comply with (M/E) / S has a motivating reason to ψ .

It is easy to see how the regress would continue. However, nothing about Internal Rule is committed to IR/2. Internal Rule merely says that Ann is motivated to ϕ only if she has a desire to comply with (M/E). She need not be motivated to comply with (M/E) on top of that. (Please note that, on Dreier's

¹¹ Cf. "Given that Ann's desire for e does not move Ann to do what she acknowledges is necessary to bring e about, it is entirely unclear that a further desire (here, the desire to act as (IP) requires) would be any more successful in moving her. (Jollimore 2005: 294) The rule (IP), here, is comparable to (M/R).

account (2001: 35), to be motivated is not just to have a desire, but also to have a belief about how to satisfy that desire.) Here is Brunero's clarification of Dreier's reasoning:

The Tortoise's acceptance of Modus Ponens as a premise was futile because the Tortoise refused to apply Modus Ponens to his premises. (Likewise, Ann's attainment of a desire to comply with (M/E) is futile because Ann, by hypothesis, refuses to apply (M/E) to her desires and beliefs.) (2005: 562)

Unfortunately however, this does not help as the analogy breaks down. It is true that the Tortoise refuses to apply Modus Ponens to her premises. Yet the Tortoise does not have any desire to comply with Modus Ponens, and (unless we have more information about the situation) might well refuse to apply it. Ann by contrast does have a desire to comply with (M/E). Within the Internal Rule framework, Ann cannot deny that she has a motivating reason to take the prep course, given the other attitudes that she has.

Next I will show that a similar problem returns for Brunero's own motivation for (H2). Brunero's analysis differs from Dreier's in two main respects. First, where Dreier speaks of 'motivating reasons' (i.e. for action), Brunero speaks of 'obligations' (i.e. to adopt certain propositional attitudes). Second, Brunero takes his reasoning to apply to *all* rules of rationality, and not just to (M/E). Dreier argued that the (M/E) rule must have a special status. Specifically, his view is that instrumental rationality is fundamental, as we cannot have pro-attitudes towards (M/E) while we can have such attitudes towards other such rules. In response, Brunero shows that the same kind of reasoning can be used in favour of any rule, and not just regarding (M/E). To explain this, let us consider my Means/End Consistency case again (yet I could have taken any other case of attitude reasoning as well):

- (a) I intend to publish a paper.
- (b) I believe that publishing a paper requires me to stay home.
- (z) I ought to intend to stay home.

- (R) S intends to ϕ ; S believes that ϕ -ing requires S to ψ / S ought to intend to ψ .

By Internal Rule, I am not obliged to apply (R) to my given attitudes (a) and (b) unless I have the additional desire to comply with (R). If that is so, we seem to have the following, new situation:

- (a) I intend to publish a paper.

- (b) I believe that publishing a paper requires me to stay home.
 - (c) I desire to comply with (R).
 - (z) I ought to intend to stay home.
- (R*) S intends to ϕ ; S believes that ϕ -ing requires S to ψ ; S desires to comply with (R) / S ought to intend to ψ .

Brunero's reasoning is this (2005: 563ff): If I am not obliged to apply (R) to my given attitudes (a) and (b) unless I have the additional desire to comply with (R), then by parity of reason it is similarly the case that I am not obliged to apply (R*) to my new set of attitudes consisting of (a), (b) and (c) unless I have the additional desire to comply with (R*). It is easy to see how this reasoning can be continued. Furthermore, if ever more additional desires must be supplied in order to bridge the gap between my attitudes (a) and (b) and obligation (z), then we never cross it (so to speak). In brief: the additional attitudes provided by Internal Rule are idle.

This reasoning fails basically in the same way as Dreier's initial argument failed. The problem is that (R*) and further rules plus desires to comply with them are irrelevant. It is true that, by Internal Rule, I am obliged to apply (R*) to (a), (b) and (c) only if I have the additional desire to comply with (R*). However, this does not matter so long as my obligation to apply (R) does not depend on any obligation to apply (R*). Nothing about Internal Rule is committed to this. Internal Rule says that I am obliged to apply (R) only if I have a desire to comply with it, and does not also require that I ought to apply a new rule, i.e. (R*), to my new, expanded set of attitudes.

Still, even if it does not lend support for (H2), there is something about Brunero's analysis that hints in the right direction.

4.3. Obligations

Here is, I take it, the crucial passage from Brunero's article:

In my view [...] the potential for a Carroll-style regress just shows us that since instrumental rationality involves a higher-order commitment to combine our willing an end with our taking the necessary means, it therefore cannot, on pain of regress, itself be added as a conjunct to one of the elements to be combined. (2005: 563)

As just argued, this fails if spelled out along the lines of (H2). Carroll's Tortoise does not show that further attitudes cannot be among the attitudes to be combined in order to result in an obligation. There is, however, one crucial

notion in this passage, i.e. ‘higher-order commitment’, that I will use to defend (H3) instead (i.e. the view that the solutions which implicitly invoke additional obligations are committed to a regress and hence fail).

In the previous subsection we have seen that Internal Rule generates no regress. Still, it can be shown that the following does:

IR/3 I am obliged to apply a rule x , any rule, to my attitudes only if I am obliged to apply another rule y to a bigger set of attitudes containing, in addition, the attitude that I desire to comply with x .

This generates a regress of obligations. By IR/3, I am obliged to apply (R) to my attitudes only if I have the following higher-order obligations:

- to apply (R*) to a bigger set of attitudes containing, in addition, the attitude that I desire to comply with (R);
- to apply (R**) to a bigger set of attitudes containing, in addition, the attitude that I desire to comply with (R*);

etc.

where

(R) S intends to ϕ ; S believes that ϕ -ing requires S to ψ / S ought to intend to ψ ;

(R*) S intends to ϕ ; S believes that ϕ -ing requires S to ψ ; S has a pro-attitude towards (R) / S ought to intend to ψ ;

(R**) S intends to ϕ ; S believes that ϕ -ing requires S to ψ ; S has a pro-attitude towards (R); S has a pro-attitude towards (R*) / S ought to intend to ψ ;

etc.

These obligations are called ‘higher-order’ because they oblige one to have pro-attitudes towards higher-order rules, i.e. rules which are about other rules. Also, they are not intended to be reflective: the subject that has them need not be aware of them. Relatedly, these higher-order obligations are not meant to be problematic because they would have to figure explicitly in our reasoning. Rather, they are problematic because IR/3 establishes that I am obliged to apply (R) only if I am obliged to apply an infinity of rules to an infinite number of sets of my attitudes. Provided that I cannot be obliged to apply so many rules (and have so many attitudes), I cannot be in the position that is required to be obliged to apply (R). Hence, if IR/3 would be in place, then I would not be obliged to apply (R), or indeed any rule whatsoever. But

clearly I am obliged to apply a number of rules, so IR/3 and its appeal to higher-order obligations must be false.

Generally the idea is that Carroll-style considerations show that our obligations to apply rules to our attitudes, and indeed our obligations to adopt certain attitudes given other attitudes that we happen to have, should not depend on any further obligations of the same sort (on pain of infinite regress). This, indeed, is (H3).

One might wonder whether this has anything to do with Carroll's initial puzzle. But it does. And the parallel is actually quite close. For the most direct lesson of Carroll's initial puzzle is *not* that we should employ rules of inference in order to draw conclusions from premise sets. Rather, its most direct moral is that our obligations to accept conclusions given certain premise sets should not depend on further obligations of the same sort, i.e. of obligations to accept conclusions given bigger premise sets (on pain of infinite regress). More precisely, it shows that the following line creates trouble:

IR/4 The Tortoise is obliged to accept a conclusion x given a set of premises y , any set, only if she is obliged to accept x given a bigger set containing, in addition, the premise 'if the members of y are true, then x is true'.

Again, this generates a regress of obligations, and in the same way as above it establishes that the Tortoise is not obliged to accept whatever conclusion. As the Tortoise is clearly obliged to accept plenty of conclusions given the premises that she subscribes to, IR/4 must be false. (Only at this point the positive moral about rules comes in: we must accept conclusions from a premise set thanks to rules of inference, i.e. rather than premises of the form 'if the premises are true, then the conclusion is true'.)

The case can be generalised. As I shall show below in Sect. 4.4, any view that subscribes to a line like IR/3 or IR/4 runs into regress problems. If so, this poses a restriction on any solution to our problem of how to generate obligations from our attitudes (namely, as I will explain, that it should entail no line like IR/3 or IR/4).

Nevertheless, this need not rule out any of the four solutions listed in Sect. 3. This means that, as far as Carroll's Tortoise is concerned, obligations can be generated from our attitudes via premises as well as via rules, supplemented with or without additional attitudes. The Tortoise does only rule out versions of them subscribe to a line like IR/3 or IR/4. The latter are, however, additional commitments and need not form part of the solutions themselves. Thus, as far as the Tortoise is concerned, and this should be

surprising for Dreier, Brunero and other commentators in this debate, Internal Rule can be a perfectly viable solution.¹²

4.4. General diagnosis

So far I argued that Carroll's Tortoise provides support for the hypothesis (H3), rather than for (H1) or (H2). Before concluding, I shall demonstrate that my argument in the foregoing relies on a general fact about infinite regress arguments. The upcoming section is not meant to lend further support for my argument, merely to supplement it with a logical rationale.

That rationale is as follows. In all generality, regresses are generated by all instances of:

IR For any item x of a certain type, $S \phi$ -s x only if
 (i) there is a new item y of that same type, and
 (ii) $S \phi$ -s y .

In other words: For any task or feature x of a certain sort, you carry out or possess x only if there is another, distinct task or feature y of that very same sort and you carry out or possess y . There are at least four important aspects about IR and if one of them would be missing, no regress would ensue:

- its universal quantification (such that the principle applies to all new items of the given type),
- the fact that the items are of the same type (such that the new items fall within the scope of the principle),
- clause (i), and
- clause (ii).

Compare the familiar regress of reasons, which can be generated by another instance of IR:

IR/5 For all propositions x , S is justified in believing x only if (i) S has a reason y for x , and (ii) S is justified in believing y .

Suppose S is justified in believing a proposition p_1 . By (i), S has a reason, p_2 , for p_1 . By (ii), S is justified in believing p_2 . By (i) again, S has a reason, p_3 , for p_2 . And so on. This regress would not ensue if IR/5 would not be

¹² Incidentally, I myself am quite sympathetic to this view.

universally quantified, if reasons were no propositions as well, if clause (i) would fail, or lastly if clause (ii) would.¹³

The infinite regress arguments by Dreier and Brunero fail only because clause (ii) does not hold (even though all the rest is in place). In Dreier's case, Ann is motivated to perform an action only if she has a desire to comply with (M/E). Yet, nothing follows, as we have seen, because it is not also required that Ann is motivated to comply with (M/E). In Brunero's case, S is obliged to comply with (R) only if S has a desire to comply with (R). Again, nothing follows so long as S need not be obliged to comply with another rule (R*) on top of that.

<i>IR</i>	<i>Domain</i>	φx
1	attitudes	being obliged to adopt x
2	actions	being motivated to perform x
3	rules	being obliged to comply with x
4	sets of premises	being obliged to accept a conclusion given x
5	propositions	being justified in believing x

Table 1: Overview instances

5. Coda

Should I intend to stay home this summer? Why should I adopt certain attitudes given certain other attitudes that I have? By many eyes, Carroll's Tortoise has something important to say about this problem. I agree. Yet, her importance does not lie where commentators usually think it lies. As I argued in this paper, the Tortoise does not demonstrate that no extra premises (rather than rules) should be introduced in our reasoning, nor that whatever is to govern our attitudes (premises or rules) should remain external to our attitudes. Rather, she shows that no solution to this problem should entail an instance of IR, and let our obligations to adopt certain attitudes depend on additional obligations to adopt further attitudes.

References

Blackburn, S. 1995. Practical Tortoise Raising. *Mind* 104: 695-711.

¹³ For further details about the logic and dialectic of infinite regress arguments, cf. Wieland (2012).

- Broome, J. 2002. Practical Reasoning. In J. Bermúdez & A. Millar (Eds.), *Reason and Nature. Essays in the Theory of Rationality* (pp. 85-111). Oxford: OUP.
- Broome, J. 2005. Does Rationality Give Us Reasons? *Philosophical Issues* 15: 321-37.
- Brunero, J. 2005. Instrumental Rationality and Carroll's Tortoise. *Ethical Theory and Moral Practice* 8: 557-69.
- Carroll, L. (C. L. Dodgson) 1895. What the Tortoise Said to Achilles. *Mind* 4: 278-80.
- Dreier, J. 1997. Humean Doubts About the Practical Justification of Morality. In G. Cullity et al. (Eds.), *Ethics and Practical Reason* (pp. 81-100). Oxford: Clarendon.
- Dreier, J. 2001. Humean Doubts about Categorical Imperatives. In E. Millgram (Ed.), *Varieties of Practical Reasoning* (pp. 27-47). Cambridge, MA: MIT.
- Engel, P. 2005. Logical Reasons. *Philosophical Explorations* 8: 21-38.
- Jollimore, T. 2005. Why is Instrumental Rationality Rational? *Canadian Journal of Philosophy* 35: 289-307.
- Kolodny, N. 2005. Why Be Rational? *Mind* 114: 509-63.
- Lazar, A. 1999. Akrasia and the Principle of Continence or What the Tortoise Would Say to Achilles. In L. E. Hahn (Ed.), *The Philosophy of Donald Davidson* (pp. 381-401). Chicago, Ill.: Open Court.
- Railton, P. 1997. On the Hypothetical and Non-hypothetical in Reasoning about Belief and Action. In G. Cullity et al. (Eds.), *Ethics and Practical Reason* (pp. 53-79). Oxford: Clarendon.
- Ryle, G. 1950. 'If', 'So', and 'Because'. In M. Black (Ed.), *Philosophical Analysis* (pp. 302-18). Ithaca: CUP.
- Schueler, G. F. 1995. Why 'Oughts' are not Facts (or What the Tortoise and Achilles Taught Mrs. Ganderhoo and Me about Practical Reason). *Mind* 104: 713-23.
- Schwartz, J. 2010. Do Hypothetical Imperatives Require Categorical Imperatives? *European Journal of Philosophy* 18: 84-107.
- Setiya, K. 2009. Intention. In E. N. Zalta (Ed.), *Stanford Encyclopedia of Philosophy*. <<http://plato.stanford.edu/>>
- Smiley, T. 1995. A Tale of Two Tortoises. *Mind* 104: 725-36.
- Streumer, B. 2010. Practical Reasoning. In T. O'Connor & C. Sandis (Eds.), *A Companion to the Philosophy of Action* (pp. 244-51). Malden, MA: Wiley-Blackwell.
- Stroud, B. 1979. Inference, Belief, and Understanding. *Mind* 88: 179-96.
- Thomson, J. F. 1960. What Achilles Should Have Said to the Tortoise. *Ratio* 3: 95-105.

- Way, J. 2010. The Normativity of Rationality. *Philosophy Compass* 5: 1057-68.
- Wedgwood, R. 2005. Railton on Normativity. *Philosophical Studies* 126: 463-79.
- Wieland, J. W. 2012. *And So On. Two Theories of Regress Arguments in Philosophy*. PhD dissertation, Ghent University.

* Thanks to: Erik Weber and the referees of the journal for extensive feedback. I am a PhD fellow of the FWO at Ghent University. Email: jjwwieland@gmail.com