

## RADICAL COGNITIVISM ABOUT PRACTICAL REASON

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**M**IGHT practical reason be a species of theoretical reason? Can we make sense of practical deliberation as a special kind of theoretical calculation? Common sense teaches us that the practical and theoretical aspects of thought are quite different in nature—whereas practical reason concerns itself with *what to do*, theoretical reason is concerned rather with *what to believe*. The differences between their natures come in two broad kinds: psychological and normative. First, the constitutive psychological ingredients of these two species of thought differ. Consider, for instance, an episode of practical deliberation. It might take desires, beliefs, and intentions as input. And it issues in (further) intentions, or else in adjustments to the inputted intentions, as output. In contrast, theoretical reasoning takes only cognitive states (such as beliefs and credences) as input and produces only further cognitive states, or else adjustments to the inputted cognitive states, as output.

Second, the norms governing these two modes of thought diverge. On the face of it, theoretical reasoning is subject to epistemic norms alone.<sup>1</sup> Epistemic norms include requirements of theoretical rationality, such as the prohibition against believing contradictory propositions, and considerations that count as evidence in favor of believing one proposition or another. In contrast, practical deliberation is governed (in addition) by distinctively practical norms—that is, by requirements of practical rationality, such as the prohibition against intending to perform incompatible actions, and by practical reasons that count in favor of acting in this way or that.

In light of these manifest differences in natures, the prospects for any proposed reduction of the faculty of practical reason to a faculty of theoretical reason may look bleak. After all, it seems like it is one thing to be weighing up what you should (intend to) do, in light of your various reasons for action, and quite another thing altogether to be figuring out what you should believe,

1 Adler, *Belief's Own Ethics*; Shah, "A New Argument for Evidentialism"; Parfit, *On What Matters*, vol. 2; Way, "Two Arguments for Evidentialism."

in light of your evidence. Nevertheless, in this paper, I pursue this project of seeking to reduce practical reason to a species of theoretical reason. Since these faculties are both psychological and normative in nature, the proposed reduction precipitates a total reduction of the practical—attitudes, reasoning, and norms—to the theoretical. In particular, practical attitudes—intentions and desires—are reduced to beliefs; practical reasoning is reduced to a kind of theoretical reasoning; and practical normativity is reduced to a variety of epistemic normativity. In my terms, it entails a “radical cognitivism about practical reason.”

This picture of the mind will likely appear highly revisionary. On the precisified model to be defended, an agent engaged in practical deliberation—that is, deciding *what to do*, given her (believed) reasons for action, or her desires and means-end beliefs—is really just trying to predict what *she is going to do*, given the evidence available to her. Hence, an agent’s intentions to act must really be certain of her beliefs concerning what she is going to do, and her reasons for action are revealed to be a species of her reasons to believe that she will so act. Even her desires are reduced to cognitive states. The mind ultimately consists purely in cognitive states that are governed solely by epistemic norms.

However, in a certain sense, this picture is not really revisionary at all. Radical cognitivism about practical reason, as I conceive it, is *not* an eliminativist account of the practical aspects of reality. It is *not* saying that the practical attitudes do not exist, and that the mind is rather just a mass of cognitive states. Nor is it saying that practical norms or practical reason itself are unreal, and that only epistemic norms and theoretical reason exist. No—all it is saying is that the practical aspects of reality *reduce* to the theoretical aspects. And such a view is straightforwardly inconsistent with the nonexistence of the practical.

Why be interested in this theory of practical reason as a species of theoretical reason? What are its virtues? In short: parsimony, both psychological and normative. After all, why posit two fundamental modes of reason—one theoretical in nature, the other practical—when we can make do with just one? First, this reduction unifies and streamlines our theory of the mind: it promises to explain behavior through appeal to just *one kind* of mental state, theoretical attitudes, playing by *one set* of psychological rules, rather than by reference to a *plurality* of such states playing by *different sets* of rules. Second, our normative theory is likewise unified and economized with no loss of explanatory power: normative reality is held to bottom out in epistemic norms alone, entities already posited by our normative theory.<sup>2</sup> Third, this theory of practical reason, I claim, vindicates (limited) forms of moral rationalism and prudential rationalism—the

2 Moderate cognitivism about practical reason can be motivated through appeal to considerations of normative parsimony: for example, by citing the fact that it allows us to explain certain requirements of practical rationality in terms of certain *already posited*

doctrines, respectively, that we have (some) reasons to be moral and prudent that are independent of our desires.<sup>3</sup> And it does this in a novel way—quite unlike Kantian or realist strategies for defending these conclusions.<sup>4</sup>

Of course, these virtues are contingent upon the proposed reduction of the practical to the theoretical being successfully executed. After all, if we cannot make sense of practical thought and motivation as a species of theoretical mentation, or if we cannot preserve common sense concerning what we have reason to do—enough to be sensibly endorsed, at least—under the new regime, then radical cognitivism about practical reason will fall at the first hurdle: namely, that of accounting for the (behavioral and normative) data. Given this, my aim in this paper is simply to begin this task of showing how we might make sense of practical thought as a species of theoretical cogitation.

I cannot hope to address, in one paper, all aspects of this radical cognitivism about practical reason. Distinct aspects of the radical cognitivist's project—such as her theory of the mind or theory of practical normativity—demand individual attention. Hence, in this paper I will restrict myself to just investigating the cognitivist theory of intention and means-end practical reasoning

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requirements of theoretical rationality. In other words, that such a picture allows us to unify and economize our normative theory.

3 Schafer-Landau, *Moral Realism*.

4 Korsgaard, *Sources of Normativity*. However, I cannot adequately discuss this third virtue in this paper, since it concerns an aspect of the radical cognitivist's reduction—her theory of practical norms—that I lack the space to introduce here, and which I rather develop and defend in a separate paper (Ratoff, "Practical Reason as Theoretical Reason"). Another reason to pay attention to radical cognitivism about practical reason is that it *may* be an entailment of the prediction-error minimization (PEM) model of the mind that is currently ascendant in cognitive science (Friston, "A Theory of Cortical Responses"; Friston, Kilner, and Harrison, "A Free Energy Principle for the Brain"; Friston, Adams, and Montague, "What Is Value"). This theory of the mind has recently received a lot of attention from philosophers of cognitive science (Hohwy, *The Predictive Mind*; Clark, *Surfing Uncertainty*). According to this theory, all the mind ever fundamentally does is make hypotheses about the environment, generate prediction errors by comparing its predictions with its sensory data, and use these prediction errors to update its representation of the world (Friston, Kilner, and Harrison, "A Free Energy Principle for the Brain"; Clark, "Whatever Next?"; Hohwy, *The Predictive Mind*). (A prediction error is the difference between some prediction and the corresponding observation.) On the face of it, PEM entails that, fundamentally, all mental states are cognitive states, all practical reasoning is theoretical reasoning, and all practical norms are really epistemic norms. Indeed, as one of the principal proponents of PEM, the neuroscientist Karl Friston, puts it, this picture entails that "value is evidence" (Friston, Adams, and Montague, "What Is Value"). Critically, however, not all those working on PEM agree that it entails a wholesale reduction of the practical to the theoretical (cf. Clark, "Beyond Desire?"). Still, taken at face value, PEM looks to entail radical cognitivism about practical reason. This, I think, gives us another reason to take it seriously.

to which the radical cognitivist is committed.<sup>5</sup> On this psychology, your intentions to act are predictions about what you are going to do, formed in light of evidence alone, and means-end practical reasoning is a variety of theoretical inference concerning the likely causes of your predicted future actions. My discussion will center on developing and critically examining the radical cognitivist's options for satisfying the desiderata of any adequate theory of intention and means-end practical reasoning—for example, whether she can explain how mere beliefs can occupy the functional role of intention, or accommodate the commonsense distinction between intending to do something and merely foreseeing that you will do it, purely through appeal to cognitive states and the epistemic norms governing them. Unlike other cognitivists about practical reason, the radical cognitivist reduces all practical reasoning to theoretical reasoning and all practical norms to epistemic norms. She therefore faces *unique* challenges in accounting for the basic desiderata of any adequate theory of intention and means-end practical reasoning: whereas other cognitivists can appeal to *sui generis* practical states (desires) and norms, the radical cognitivist is restricted to the sparse resources—cognitive states and the epistemic norms that govern them—to which she has restricted herself.<sup>6</sup>

Moderate cognitivism about practical reason has been defended now by a plurality of philosophers—including but not limited to David Velleman, Jay Wallace, Kieran Setiya, and Jacob Ross.<sup>7</sup> Such moderate cognitivists hold that certain aspects of practical reason are really instances of theoretical reason. For example, such cognitivists hold that intentions are, or involve, beliefs and that certain norms of practical rationality just are, or can be explained in terms of, certain norms of theoretical rationality. This project can be motivated through appeal, among other things, to considerations of normative parsimony: Why posit *sui generis* practical norms when we can make sense of them as a species of epistemic norm already posited by our normative theory? Radical cognitivism about practical reason, then, is simply the souped-up version of this project taken to its ultimate limit.

5 Consequently, I will address topics such as the radical cognitivist's theory of normative judgment and whether she can accommodate the possibility of akrasia, etc., not in this paper but rather in a separate paper ("Theoretical Reason as Practical Reason") that concerns the radical cognitivist's theory of practical norms, since these topics presuppose acquaintance with said theory of practical norms.

6 Harman, "Practical Reasoning"; Setiya, "Practical Knowledge."

7 Velleman, "Practical Reflection" and *Practical Reflection*; Wallace, "Normativity, Commitment, and Instrumental Reason"; Setiya, "Practical Knowledge"; Ross, "How to Be a Cognitivist about Practical Reason."

This sets the agenda for this paper. My strategy will be to address only those aspects of the radical cognitivist's theory that are distinctive and where she faces unique challenges, and to treat more briefly, or even bracket, those elements that are shared with other cognitivist theories of practical reason. Cognitivism about intention and practical reason is a prominent view in the literature—defended, in various forms, by Paul Grice, Robert Audi, Gilbert Harman, Wayne Davis, David Velleman, Jay Wallace, Kieran Setiya, Jacob Ross, and Berislav Marušić and John Schwenkler—and I do not want to simply rehash any well-trodden dialectical ground.<sup>8</sup> Rather, I will just assume that these more modest varieties of cognitivism are defensible, an assumption that will allow me to avoid relitigating here a number of disputes.<sup>9</sup>

Before we continue, I should briefly address the comparison between radical cognitivism about practical reason and David Velleman's theory of practical reason.<sup>10</sup> The parallels here cannot be ignored: on both models, intentions to act are identified with certain predictions about what you are going to do. And, in both pictures, you are moved—in virtue of your nature as an agent—to act in the way that you rationally expect yourself to act. Consequently, on both views, evidence concerning your future actions can be apt to constitute a reason for you to act in those ways. The similarities, however, end there. Velleman's cognitivism about practical reason is not one of complete reduction of the practical to the theoretical: desires in his picture are left as *sui generis* practical states. Nor, most critically, are practical norms reduced *en masse* to a species of epistemic norm: there are reasons, on Velleman's view, for you to act that do *not* reduce to some kind of evidence about what you will do—for example, a *sui generis* practical reason to *F* given by your desire to *F*. (The radical cognitivist, of course, denies this.) Nevertheless, the deep similarities just cataloged make

8 Grice, "Intention and Uncertainty"; Audi, "Intending"; Harman, "Practical Reasoning"; Davis, "A Causal Theory of Intending"; Velleman, "Practical Reflection" and *Practical Reflection*; Wallace, "Normativity, Commitment, and Instrumental Reason"; Ross, "How to Be a Cognitivist about Practical Reason"; Marušić and Schwenkler, "Intending Is Believing."

9 So, for example, to avoid simply rehearsing defensive moves that have already been made in the literature, I will not discuss the matter of whether or not the cognitivist thesis that intending to *F* entails believing that one will *F* is tenable in light of various counterexamples suggesting that there are circumstances in which one can rationally intend to *F* but cannot rationally believe that one will *F*. Rather, I will simply assume that this doctrine is defensible. For a defense of this cognitivist thesis, the interested reader can consult Harman, "Practical Reasoning"; Ross, "How to Be a Cognitivist about Practical Reason"; or Marušić and Schwenkler, "Intending Is Believing"—although for a recent critique, see, for example, Paul, "How We Know What We're Doing" and "Intention, Belief, and Wishful Thinking."

10 Velleman, "Practical Reflection" and *Practical Reflection*.

Velleman's theory the natural reference point for any discussion of radical cognitivism about practical reason.

The structure of the rest of this paper goes like this. In section 1, I outline and develop the precisified version of radical cognitivism about practical reason to be defended here. In section 2, I show how the radical cognitivist can generate an adequate theory of intention and means-end practical reasoning simply by endorsing the standard view in the philosophical literature concerning the propositional content of intentions. Such a theoretical move allows the radical cognitivist, I claim, to explain how mere beliefs could occupy the functional role of intention—to accommodate the commonsense distinction between intending to do something and merely foreseeing that you will do it and to account for the distinction between our telic intentions and our instrumental intentions, purely through appeal to the sparse resources to which she has limited herself. Last, in section 3, I show how the radical cognitivist can account for the “forward-looking” orientation of practical reason—in particular, the fact that no rational agent ever intends to perform some action without taking it to promote their ends.

#### 1. RADICAL COGNITIVISM ABOUT PRACTICAL REASON

How could practical reason be a branch of theoretical reason? How can we make sense of motivation and practical deliberation with such sparse resources—as a species of cognition and theoretical calculation? Consider some arbitrary episode of practical reasoning. Suppose that I find myself in a novel situation and ask myself, “What shall I do next?” I consider some of the various actions that I could now perform in light of their likely upshots. I then find myself, as a result of this process, concluding that I will perform one of these actions.

Now, this is supposed to be a description of practical reasoning. But nothing that is described here seems *exclusively* practical. There is nothing described that rules out the hypothesis that this is in fact an episode of theoretical reasoning. After all, theoretical reasoning can result in conclusions about what I will do. For example, I can confidently predict now, in light of abundant evidence, that I will one day retire and try to enjoy my remaining days on this earth in a more relaxed fashion. And such theoretical conclusions about what I will do can be formed purely in light of reflection on their likely upshots. For example, I might have concluded that I will one day retire, not because I know that people like me standardly retire at some point, but rather in light of my evidence that retirement standardly produces more opportunities for leisure and that I tend to do things that are likely to produce opportunities for leisure.

This, in essence, is how I propose that practical reason might turn out to be a variety of theoretical reason. Practical reasoning, on the advertised view,

commences with you attending to the various outcomes that you could bring about. Since you have good evidence—formed in light of a lifetime of experience—that you will act to bring about certain outcomes as *ends*, for the sake of no further purpose, you will (if rational) be moved to form beliefs that you will so act (to bring about said outcomes as ends). These beliefs constitute your *telic* intentions—that is, your intentions to bring about certain outcomes as *ends*, for no further purpose. And this evidence that you will so act constitutes your *telic* reasons for action. This evidence is given to you by a certain history of action—namely, a history of both you and others acting to bring about certain outcomes as ends (e.g., your and others’ well-being and autonomy). The “spring of action,” then, on this view, is your instinctive disposition to induce from prior experience. Of course, this is just what we should expect when reducing the practical to the theoretical.

Once you have settled upon which end you are going to bring about, you initiate means-end practical reasoning—that is, the project of selecting an appropriate means to your end. For our radical cognitivist, means-end practical reasoning is just the project of inferring the most likely *causes*, given your evidence, of your bringing about those outcomes that you now predict you will attempt to bring about as ends—namely, your *acting* in certain ways that would, by your lights, help bring about said outcomes. The beliefs about what you will do, which this reasoning issues in, constitute your *instrumental* intentions—that is, your intentions to perform certain actions as *means* to bringing about your ends. This, in summary form, is how I propose that we can make sense of practical reason as a species of theoretical reason.

Of course, this sketch of the picture at hand needs much further elaboration and development. But it should give the reader a sense of the mechanics of the proposed reduction. When you are engaging in practical deliberation about what to do, what you are really doing is just trying to figure out what you will do, attending only to evidence about your future actions. Consequently, your intentions to act are revealed to really be certain beliefs about what you are going to do, and your reasons for action are unmasked as a kind of evidence concerning your future actions. And what it is to be engaged in means-end practical reasoning, it turns out, is really to be inferring the likely causes of your predicted future actions or the likely causes of the outcomes that you predict you will attempt to bring about, in light of your evidence.

Now that we have the basic picture under our belts, I want to bracket further consideration of the radical cognitivist’s theory of practical reasons as evidence and instead focus our attention on her theory of intention and means-end practical reasoning. The bulk of the rest of this paper is devoted to showing how the radical cognitivist can construct a theory of intention and means-end practical

reasoning, one that accommodates all the desiderata of any adequate theory of such phenomena but appeals only to the sparse resources—cognitive states, episodes of theoretical reasoning, and the epistemic norms governing them—to which she has limited herself.

However, before moving on, I first want to briefly draw attention to one point that is key to understanding the central significance of the radical cognitivist's theory of intention to her whole project. Radical cognitivism about practical reason does *not* entail that *any* evidence concerning what you will do counts as a reason for so acting—for example, that your evidence, gleaned from hard experience, that you will offend your host at their party constitutes a reason for you to offend them. No—that would be an absurd view. Rather, as was indicated above, only your evidence that concerns what outcomes you will act to bring about as an *end* (as a result, in the right kind of way, of this very evidence) is apt to constitute your telic reasons for action. And only your evidence that you will perform some action as a *means* to one of your ends (as a result, in the right kind of way, of this very evidence) is apt to constitute your instrumental reasons for action. This theory of practical reasons as evidence can, I claim, recover common sense about what we have reason to do—enough to be sensibly endorsed.<sup>11</sup>

But why should only this evidence count as your reasons for action? What *explains* this? Why should *any old* evidence concerning your future actions not count, on the radical cognitivist's reduction, as a reason for so acting? For example, why does your evidence that you will *F* not count, for the radical cognitivist, as a reason for you to *F*? After all, *if* the radical cognitivist held that your intention to *F* is just your belief that you will *F*, *then* she would be committed to the view that *any* evidence that you will *F* counts among your reasons to *F*. How so? Well, your reasons for action, by their nature, are just those considerations that count in favor of your forming an intention to act, and the considerations that count in favor of your forming the belief that you will *F* are, for the radical cognitivist, all and only your evidence that you will *F*. Consequently, if the radical cognitivist held this simple theory of intention, then she would be committed to any evidence that you will *F* as constituting a reason for you to *F*.

However, there is no reason to saddle the radical cognitivist with this particular theory of intention. First, this theory of intention would leave no room, in the radical cognitivist's picture, for the commonsense distinction between intending to *F* and merely foreseeing that you will *F*: your foresight that you will

11 As I indicated before, here I focus just on the radical cognitivist's theory of intention and means-end reasoning. I return to the radical cognitivist's theory of practical norms as epistemic norms, and reasons for action as evidence, in a separate paper.



*F* is also just your belief that you will *F*, formed in light of evidence alone. Second, it is widely held among theorists of intention that the content of your intention to *F* is *not* simply the proposition “I will *F*.”<sup>12</sup> Rather, it is broadly recognized that your intention to *F* has a more complex proposition as its content—namely, (something like) the proposition, “I will intentionally *F* as a result of this very mental state causing me in the right kind of way to intentionally *F*.”<sup>13</sup> The radical cognitivist, I propose, should follow the orthodoxy in attributing to (the beliefs that constitute her) intentions this more complex content.

This move has a couple of important upshots. First, as I aim to show in this paper, it will allow the radical cognitivist to explain, purely through appeal to the sparse resources to which she has limited herself, how mere beliefs can occupy the functional role of intention: it is in virtue of their special content that the beliefs that constitute, on her view, intentions occupy a different functional role to the beliefs that constitute mere foresight. Second, it will straightforwardly allow the radical cognitivist to sidestep commitment to the (absurd) view that any evidence that you will *F* counts as one of your reasons to *F*. Instead, she will be committed to the view that the evidence that constitutes your reasons to *F* is just that evidence that counts in favor of your forming the belief that *you will intentionally F as a result of this very mental state causing you in the right kind of way to intentionally F*. And this evidence, I claim, is just your evidence that you will intentionally *F* as an end as a result, in the right kind of way, of (your awareness of) this very evidence, and your evidence that you will intentionally *F* as a means to one of your ends as a result, in the right kind of way, of (your awareness of) this very evidence. (I develop and defend this theory of practical reasons elsewhere.) In this way, then, simply by endorsing the standard view concerning the propositional content of intentions, the radical cognitivist can generate a psychologically adequate theory of intention and means-end practical reasoning and a normatively adequate theory of practical reason. And this, then, is why the radical cognitivist’s theory of intention is of such central importance to her overall project: without it, she can neither explain how mere beliefs could occupy the functional role of intention nor explain why only that evidence concerning what you will do as an end or as a means to an end (as a result, in the right kind of way, of this very evidence)—and not any old evidence about your future actions—is apt to constitute your reasons for action. In other words, it is a structurally critical cornerstone of the radical cognitivist’s theory of practical reason as a whole.

12 Setiya, “Reasons without Rationalism”; Velleman, “Practical Reflection” and *Practical Reflection*. There are, of course, dissenters: Marušić and Schwenkler, for example, hold that your intention to *F* is just your belief that you will *F* (“Intending Is Believing”).

13 Harman, “Practical Reasoning.”

## 2. INTENTION AS PREDICTION, PLANNING AS INFERENCE

The contemporary orthodoxy in philosophical psychology on the nature of intention and means-end practical reasoning is best represented by the work of Michael Bratman.<sup>14</sup> For Bratman, intentions are commitments to action. In the same way that beliefs are theoretical commitments to the truth of a proposition, intentions are practical commitments to taking some course of action. They are the constituent elements of partial plans that get filled in (with further intentions and beliefs) as events unfold. Furthermore, for Bratman, they are also *sui generis* mental states, on a par with belief and desire and irreducible to them.

Nevertheless, the standard view still has it that we can characterize intentions and their status as commitments to action in terms of their having the following core features: intentions (1) are conduct controlling and (2) drive means-end practical reasoning.<sup>15</sup> What it is for a mental state to be conduct controlling is for it to be disposed to prompt you, at the appropriate time by your lights, to act in the way that it represents you as acting. And what it is for an intention to drive means-end practical reasoning, or planning, is for it to be such that it exerts rational pressure on you, at the right time by your lights, to plan out how you will act in the intended way.<sup>16</sup> I will follow the standard view here in assuming that it is a condition of adequacy on any theory of intention that it can accommodate these two features.

My principal goal in the rest of this paper is to show how the radical cognitivist can generate an adequate theory of intention—one that explains how mere belief can be both conduct controlling and drive means-end reasoning, and thus apt to occupy the functional role of intention purely through appeal to cognitive states, episodes of theoretical reasoning, and the epistemic norms governing them—simply by endorsing the standard view in the philosophical literature concerning the propositional content of intentions. As I said before, it is broadly agreed that the intention to *F* does *not* simply have the proposition “I will *F*” as its content.<sup>17</sup> Rather, it is generally thought to have as its content (something like) the proposition “I will intentionally *F* as a result of this very mental state causing me in the right kind of way to intentionally *F*.”<sup>18</sup> The radical cognitivist, I claim, can generate an adequate theory of intention and means-

14 Bratman, *Intentions, Plans, and Practical Reason*.

15 Bratman, *Intentions, Plans, and Practical Reason*; Holton, *Willing, Wanting, Waiting*.

16 And this *rational* pressure to begin planning will, in a sufficiently rational agent, constitute *motivational* pressure to begin planning.

17 Setiya, “Reasons without Rationalism”; Velleman, “Practical Reflection” and *Practical Reflection*.

18 Harman, “Practical Reasoning.”

end reasoning just by attributing (the beliefs that constitute her) intentions this more complex content. She need not—as the moderate cognitivist about practical reason does—appeal to *sui generis* practical states or norms.

### 2.1. *The Radical Cognitivist's First Pass at a Theory of Intention and Planning*

Let us begin by considering the “primordial,” or “first pass,” formulation of the radical cognitivist’s theory of intention and means-end practical reasoning. Consider the following instance of practical reasoning: it is midday and you form the intention to eat a burrito for lunch. You believe that you can eat a burrito if you walk to the food truck, purchase a burrito, and bite into it. In light of all this, you then form the intention to walk to the food truck, purchase a burrito, and bite into it. This intention then moves you to do just that. How do radical cognitivists propose that we make sense of this practical episode as a wholly theoretical enterprise involving only cognitive mental states governed solely by epistemic norms?

Radical cognitivists about practical reason—just like certain proponents of moderate cognitivism about practical reason—conceive of means-end reasoning as an instance of theoretical inference.<sup>19</sup> First, your intentions to act are identified with predictions about what you are going to do. And second, means-end reasoning is held to be a sequence of theoretical inferences concerning the likely causes of your predicted future actions. Thus, means-end practical deliberation commences after you have made a prediction about what you are going to do (say, eat a burrito) in light of your evidence. You know that the best explanation—or most likely cause—of your acting in that way is that you act in certain other ways (namely, that you walk to the food truck, purchase a burrito, bite into it, etc.). You consequently infer that you will act in those ways. You know that the best explanation of your acting in these various predicted ways is, ultimately, that your muscles contract in certain sequences. (This is where your reasoning transitions from the conscious, personal level to the unconscious, subpersonal level.) In light of this, you form an unconscious and subpersonal prediction about how your muscles are just about to contract. This prediction then causes your muscles to contract in that sequence that it predicts they will contract, and this in turn causes you to act in the way you predicted that you would. So, the practical deliberation at work in moving from intention (beliefs about your future actions) to motor command (predictions about muscle contractions) turns out to be an inference about the likely causes (muscle contractions) of predicted future states of the world (your act of eating a burrito).<sup>20</sup>

19 Setiya, “Reasons without Rationalism.”

20 One worry the skeptical reader may have had concerning this theory of means-end reasoning is how it accounts for Buridan cases, in which two actions are equally good means to the end in question. Translated to the case of radical cognitivism about practical reason,

In essence, advocates of radical cognitivism about practical reason propose that, during such practical deliberation, you treat your intended end state as “observed” and then infer backward the most likely cause of your ending up in that state. Thus, for such radical cognitivists, means-end practical reasoning is just a species of theoretical reasoning—in particular, a sequence of inferences to the best explanation. In the same way that perception is the endeavor to explain your sensory input through inferring the distal causes of that input—this being the dominant understanding of perception in cognitive science—means-end practical reasoning is the project of explaining the occurrence of your predicted future states of your person through inferring the most likely cause of them (ultimately, contractions of your muscles).<sup>21</sup> Means-end reasoning is a kind of backward-moving causal reasoning that terminates in cognitive states—motor predictions about how your muscles are just about to contract—that causally suffice for overt behavior.

This initial formulation of the radical cognitivist’s view presents us with an explanation of how mere beliefs about what you are going to do can, on the radical cognitivist’s reduction, occupy the functional role of an intention. The common-ground view in the philosophical literature is that your intentions are apt to drive planning since, in tandem with certain background beliefs, they exert rational pressure on you to start planning how you are going to act in the way they represent you as acting.<sup>22</sup> For example, your intention to *F*, taken together with your background belief that you will *F* only if you start planning how to *F* now, exerts rational pressure on you to immediately start planning how you are going to *F*. You face decisive rational pressure to either give up your intention to *F*, give up your background belief, or immediately start planning how to *F*. Granting that you have good reason to hold on to the former two attitudes, the psychic move that you are rationally required to make is to immediately start planning how to *F*.

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this would be a situation in which my evidence indicates that I am equally likely to bring about my end *E* by means *A* or means *B*. Means-end reasoning, on the radical cognitivist’s picture, would grind to a halt in such a situation—since the canons of epistemic rationality require that, if I have equally good reason to believe two inconsistent propositions, I abstain from judgment. Unfortunately, I lack the space to properly discuss this objection here, and return to it in a separate paper that focuses on the radical cognitivist’s theory of practical norms (Ratoff, “Practical Reason as Theoretical Reason”). However, one option available to the radical cognitivist here is simply to deny the setup of the problem: it is in fact *never* the case that there are two means to our end that our evidence indicates we are equally likely to perform. There is in fact always some asymmetry, by our lights, between action *A* and *B* that renders us more likely to perform one or other of the actions.

21 Friston, “A Theory of Cortical Responses.”

22 Bratman, *Intentions, Plans, and Practical Reason*.

The radical cognitivist can seek to reproduce this account: your belief that you will *F* is apt to constitute, for the radical cognitivist, your intention to *F* since, in tandem with certain background beliefs, it exerts rational pressure on you to start planning how you will *F*. After all, just like your intention to *F*, your belief that you will *F*, together with your belief that you will *F* only if you now start planning how to *F*, will exert rational pressure on you to immediately start planning. You will face decisive *epistemic* rational pressure to either give up your belief that you will *F*, give up your belief that you will *F* only if you now start planning how to *F*, or immediately start planning how you are going to *F*. Granting that you have good reason to hold on to your first two beliefs, the psychic move that minimally mutilates your web of belief, and that you are therefore required by epistemic rationality to make, is to immediately start planning how you will *F*. After all, given your web of background beliefs, if you do not now start planning how you are going to *F*, how can you rationally continue believing that you will *F*? Of course, for the radical cognitivist, the project of planning how you will *F* is just the enterprise of inferring the most likely causes of your *F*-ing. This enterprise—if completed—will bottom out in motor predictions that will causally suffice for you to *F* in the way detailed by your plan. In this way, then, the radical cognitivist proposes to explain how mere beliefs about what you are going to do can be both conduct controlling and plan driving, and consequently apt to occupy the functional role of intention on the radical cognitivist's psychology, purely though appeal to cognitive states, episodes of theoretical reasoning, and the epistemic norms governing them.<sup>23</sup>

One immediate problem with the theory so far: the radical cognitivist holds that your predictions about how your muscles are just about to contract causally suffice for their predicted muscle contractions to occur. But this seems to be obviously false: clearly, you can predict that you are just about to contract your muscles without this prediction then causally sufficing for the contraction of your muscles. For example, suppose that the evil scientist is now directly stimulating the muscles in your arm such that they spasm and contract, causing you to move your arms around. The scientist looms over you, ready to stimulate your muscles again. You consequently infer that your muscles are just about to contract. The “primordial” radical cognitivist is committed to this prediction causally sufficing for your muscles to contract. So the radical cognitivist's picture seems to (implausibly) predict that you will intentionally move your muscles here, rather than merely foreseeing that they will move as a consequence of the scientist's stimulation.

23 As I indicated above, this is just a “first pass” at the radical cognitivist's theory of intention and means-end reasoning and not the final product to be defended here. I take this formulation to be inadequate for reasons that will become clear.

The best response available to the radical cognitivist here, I think, is to appeal to reflective predictions. Harman, Setiya, and Velleman hold that your predictions about what you are going to do that constitute intentions, not mere foresight, are those that represent themselves as being the cause of the future actions that they represent.<sup>24</sup> You count as intending to *F* only when your prediction that you will *F* also represents itself as being the cause of your actually doing *F*. Let us follow Velleman in calling such beliefs “reflective predictions.”

I propose that our radical cognitivist can immunize herself against the above counterexample by joining the above cognitivists about intention in holding that your motor commands are reflective predictions about what you are going to do. How does this pertain to the problem at hand? Well, she can hold that only your *reflective* motor predictions about how your muscles are just about to contract are causally sufficient for the occurrence of their predicted muscle contractions. Your prediction that your muscles are just about to contract in the *M* way is *not* causally sufficient for your muscles then contracting in that *M* way. No—only your prediction that *your muscles are just about to contract in the M way because of this very prediction* will causally suffice for your muscles to contract in the *M* way. And you arrive at these reflective motor predictions through the same backward-moving (likely unconscious) causal reasoning (that is constitutive of means-end practical reasoning on the radical cognitivist’s account) through which you were theorized to arrive at a nonreflective motor prediction. In particular, you infer your reflective prediction that your muscles are just about to contract in the *M* way because of this very prediction from your (non-reflective) prediction that your muscles are just about to contract in the *M* way together with your belief that the best explanation—or most likely cause—of your muscles contracting in the *M* way, given your evidence, is that they will be caused to contract in the *M* way by your prediction that they are just about to contract in the *M* way. In this way, then, your reflective motor predictions, which causally suffice for their represented muscle contractions, are inferred to be the best explanation, given your evidence, of your predicted muscle contractions.

So, the radical cognitivist should adjust her theory of motor commands and hold that only reflective motor predictions are causally sufficient for their predicted muscle contractions. This allows her to explain why your prediction that your muscles are just about to contract in the evil-scientist case does not count as a motor command or intention: here you do *not* believe that this prediction is the (most likely) cause of your future muscle contractions. Rather, you believe that those muscle contractions will be the result of the scientist’s

24 Harman, “Practical Reasoning”; Setiya, “Reasons without Rationalism”; Velleman, “Practical Reflection” and *Practical Reflection*.

stimulations. Consequently, the rational pressure you would otherwise face to infer a reflective motor prediction from your nonreflective motor prediction is absent. Hence, you do not infer one. And your nonreflective motor prediction is not causally sufficient for its predicted muscle contractions. In this way, then, the radical cognitivist can now maintain (correctly) that in the evil-scientist case your arms will twitch not intentionally but rather as a result of the scientist's stimulation.

## 2.2. *How Can Mere Belief Occupy the Functional Role of Intention?*

A second problem facing the primordial radical cognitivist's theory of intention and means-end practical reasoning is that it fails to adequately explain how mere beliefs can occupy the functional role of intention. Recall that the characteristic features of intention are that it is conduct controlling and drives means-end practical reasoning. Thus, the radical cognitivist will have successfully shown how mere belief can occupy the functional role of intention just when she has shown how mere beliefs about what you are going to do can be both conduct controlling and also such that they exert rational pressure on you to plan out how exactly you will act as they indicate you will act.

But so far the radical cognitivist has failed to posit any (intrinsic) difference between those beliefs about what you will do that constitute, in her picture, your intentions to act and those beliefs that rather constitute your mere foresight about what you are going to do. According to the primordial radical cognitivist, your intention to *F* is simply a belief that you will *F*. But your mere foresight that you will *F* must also just be a belief that you will *F*. Given this, nothing could explain, for the primordial radical cognitivist, why your intention to *F* is both conduct controlling and such that it exerts rational pressure on you to plan out how you will *F* but your mere foresight that you will *F* possesses neither of these powers. What differentiates this former belief, which is supposed to constitute an intention, from the latter one, which does not? Where is the asymmetry?

Now, the moderate cognitivist about practical reason can explain the difference between those beliefs that constitute your intentions and those that rather constitute your mere foresight through appeal to a distinctively practical genealogy. For the sake of vivid illustration, consider the following concrete case. You are attending a fancy party. You aim at being entertaining. You therefore decide to tell a risqué joke, knowing that it will bring the house down. However, you also know that your host is a priggish prude who will certainly take offense at your joke. All things being equal, you would prefer not to offend your host. But you really want to amuse everyone else. Consequently, after you have weighed things up again you decide to go ahead and tell the joke anyway.

Intuitively, you here count as intending to tell a joke and merely foreseeing that you will offend your host.

Harman, Setiya, and Marušić and Schwenkler—moderate cognitivists all— theorize that the distinction between the beliefs that constitute your intentions to act and the beliefs that constitute your foresight about what you are going to do is that the former, but not the latter, are held in light of and made rational by practical reasoning—where practical reasoning is held to be *sui generis* and irreducible to any kind of theoretical reasoning.<sup>25</sup> As Marušić and Schwenkler put it: “intentions are beliefs—beliefs that are held in light of, and made rational by, practical reasoning.”<sup>26</sup> So beliefs about what you are going to do count as foresight, on this account, when they are held purely in light of evidence, whereas such beliefs count instead as intentions when they are held in light of, and made rational by, practical reasoning—that is, the process of weighing the considerations for and against some course of action in light of your *sui generis* (believed) reasons for action or your desires and means-end beliefs. Since the latter set of beliefs is the product of practical reasoning, they are apt, these cognitivists claim, to be identified with intentions. So, your belief that you will tell a joke constitutes an intention to do so because it was formed in light of and rationalized by practical reasoning: you concluded that you would tell a joke in light of your believed reasons to amuse your audience and your belief that you could amuse them by telling them that joke. But your belief that you will offend your host counts as mere foresight, on this account, since it was formed in light of evidence, not practical reasoning: you inferred that you would offend your host as a causal upshot of your predicted act of telling the risqué joke. In this way, then, through appeal to a certain practical genealogy, the cognitivist can accommodate the commonsense distinction between intention and foresight.

However, this genealogical theory of the distinction between intention and foresight will not be available to the radical cognitivist. After all, she denies the reality of any *sui generis* practical states, reasoning processes, or norms, and holds that all practical reasoning is just an instance of theoretical reasoning concerning what you are going to do. Consequently, for the radical cognitivist, your beliefs about your future actions that constitute intentions, no less than those that constitute foresight, are formed purely in light of evidence. She therefore cannot hold that the distinction between intention and mere foresight is to be drawn genealogically, with the former, but not the latter, being the product of and rationalized by *sui generis* practical reasoning or norms.

25 Harman, “Practical Reasoning”; Setiya, “Practical Knowledge”; Marušić and Schwenkler, “Intending Is Believing.”

26 Marušić and Schwenkler, “Intending Is Believing.”



How might the radical cognitivist go about explaining how certain beliefs about what you are going to do, but not others, can occupy the functional role of intention? In other words: How can she accommodate the distinction between intention and foresight? One natural thought is that the answer is already on the table: your intentions, the radical cognitivist can hold, are just your *reflective* beliefs about what you are going to do. So, perhaps the radical cognitivist should hold that the difference between intention and mere foresight resides in whether or not the prediction in question represents itself as the cause of its predicted future action. In this picture, your reflective predictions are just your intentions to act, with your nonreflective predictions about your future actions instead counting as mere foresight.

This adjustment to her theory is *not ad hoc*. There are compelling reasons for any cognitivist about intention to identify intentions to act with reflective predictions. After all, it is common ground between all theorists of intention that intentions are formed to ensure that we act in the intended way once the time comes.<sup>27</sup> Hence, everyone will agree that when we intend to act we believe that we will act in the intended way, if indeed we do so act, as a causal consequence of our intention to act in that way. After all, had we believed that we would act in that way as a causal upshot of something *other* than our intention, then we would not have judged it necessary to form an intention in the first place. As Velleman puts it,

the content of an agent's intention of doing something cannot be merely that he's going to do it, because of some impetus or other; it must be that he is going to do it partly because of this very intention. If the agent could intend to do something, without intending to do it partly because of so intending, then he could intend to do the thing unintentionally—which he can't.<sup>28</sup>

And Setiya—another cognitivist—agrees:

Intention is self-referential. When I intend to  $\phi$ , the content of my attitude is that I am going to  $\phi$  because of that very intention: intention represents itself as motivating action. . . . It is part of what one believes in deciding to do something that one's choice will be efficacious; without that belief, decision would make no sense.<sup>29</sup>

27 Harman, "Practical Reasoning"; Bratman, *Intentions, Plans, and Practical Reason*; Velleman, *Practical Reflection*.

28 Velleman, *Practical Reflection*.

29 Setiya, "Reasons without Rationalism."

In short, when you form an intention to *F*, your intention to *F* will represent itself as being the cause of your future *F*-ing. All parties to the debate should agree. Consequently, if your intentions are beliefs about what you will do, as the cognitivist insists, then they must be reflective beliefs: they must represent themselves as the cause of their predicted future actions. Given this, the radical cognitivist, too, should hold that your intentions to act are reflective beliefs about what you are going to do.

However, this way of drawing the distinction between intentions and mere foresight is not going to work. To see why, let us consider a popular counterexample in the literature to the thesis that your intentions are just your reflective predictions: Bratman's case of the pessimistic actor.<sup>30</sup> The pessimistic actor believes that he will stumble over his lines and that he will stumble over his lines as a result of this very belief. Perhaps he has a neurosis that he tends to focus too much on self-prediction and not enough on just saying his lines such that he believes this inappropriate focus will cause him to actually fluff his delivery of his lines. So, the pessimistic actor believes that he will stumble over his lines as a result of this very belief. But he does not intend to stumble over his lines. Quite the opposite! He intends to deliver them appropriately. Hence, there must be more to your intentions than mere reflective beliefs about what you are going to do.

The case of the pessimistic actor demonstrates how mere reflective beliefs about your future actions are not apt to occupy the functional role of an intention in the radical cognitivist's psychology. Your intention to *F* by its very nature necessarily exerts rational pressure on you to start—at the right time, by your lights—planning out how to *F*.<sup>31</sup> But your belief that you will *F* as a result of this very belief does not, even on the radical cognitivist's psychology, necessarily exert rational pressure on you to start planning out how you will *F*. As the case at hand illustrates, it is perfectly possible for you to believe that you will *F* as a result of this very belief but fail to face any rational pressure to begin planning out how you will *F*. After all, the pessimistic actor believes that he will stumble over his lines *without* him having to plan out how he will so stumble. He therefore faces no stark choice between giving up his reflective belief that he will stumble over his lines and starting to plan how he will do so. Hence, his reflective belief that he will stumble over his lines, unlike an intention to do so, does not exert any rational pressure on him to plan out how he will so act. In this way, then, we can see how mere reflective beliefs about what you are going to do are not apt, even on the radical cognitivist's psychology, to

30 Bratman, "Cognitivism about Practical Reason."

31 Bratman, *Intentions, Plans, and Practical Reason*.

occupy the functional role of intention: they neither drive planning nor count as conduct controlling.

In light of this problem, the radical cognitivist ought, I think, to further develop her theory of intention. As I indicated before, the radical cognitivist can generate an adequate theory of intention simply by attributing (the beliefs that constitute) her intentions the propositional content that the standard view in the philosophical literature assigns to intentions—namely, that the intention to *F* has the content “I will intentionally *F* as a result of this very mental state causing me in the right kind of way to intentionally *F*.”<sup>32</sup> Given that this is my strategy, I now want to remind the reader of why this standard view of the propositional content of intention is broadly accepted.

### 2.3. *The Standard View of the Content of Intention*

It is common ground among many theorists of intention not just that intentions represent themselves as the causes of their predicted future actions but also that intentions, by their nature, represent their predicted future actions as being caused by themselves *in a certain kind of way*. What kind of way? Your intention to *F*, it is broadly agreed, represents itself as causing you to *F*, first, by exerting rational pressure on you to plan how you will *F* and, second, by this process of planning bottoming out in motor commands that cause you to *F* in the way that your plan detailed.<sup>33</sup> The standard theory of intentional action in the literature—the causal theory of intentional action—has it that you count as intentionally *F*-ing just when you *F* as a causal consequence of your project of planning out how to *F* having bottomed out in motor commands that cause you to *F* in the way detailed by your plan.<sup>34</sup> Hence, we can more concisely articulate this second constitutive feature of intention by substituting this theory of intentional action into the content of an intention—thus: your intention to *F* represents itself as causing you to intentionally *F* by exerting rational pressure on you to intentionally *F*.

Why think this? Why join proponents of the standard view in thinking that intentions have this representational content? Well, intentions, according to the standard view, have a certain constitutive “world-mind” direction of fit: they aim at making you change the world such that it “fits” the content of your intentions.<sup>35</sup> This content represents the “success condition” of the intention: the condition that must obtain for the intention to count as having satisfied its

32 Harman, “Practical Reasoning.”

33 Harman, “Practical Reasoning.”

34 Harman, “Practical Reasoning”; Paul, “Deviant Formal Causation.”

35 Smith, *The Moral Problem*.

constitutive aim. Given this, we can infer the content of an intention simply by figuring out its success condition. And the success condition of your intention to *F*, it turns out, is your intentionally *F*-ing as a result of this very intention to *F* exerting rational pressure on you to do so. Hence, it follows that your intention to *F* must represent itself as causing you to intentionally *F* by exerting rational pressure on you to intentionally *F*.

The key question is this: Why think that the success condition of your intention to *F* is your intentionally *F*-ing as a result of this very intention to *F* exerting rational pressure on you to intentionally *F*? The answer: because common sense suggests that this is the condition under which your intention to *F* counts as having satisfied or achieved its constitutive aim. This should be evident after consideration of a few concrete cases. First, it is clearly *not* enough for your intention to *F* to count as having satisfied its constitutive aim for it to have merely caused you, in one way or another, to *F*. No—we regard your intention to *F* as having fallen short of its aim if it prompts you to *F* *unintentionally*. Consider the following example: you intend to kill someone by shooting him. However, when you shoot, you miss by a mile. But your shot causes a herd of wild pigs to stampede such that they trample your intended victim to death. Here your intention to kill the man is indeed the cause of your killing him. But it does not cause you to kill him “in the right kind of way” for you to count as having *intentionally* killed him.<sup>36</sup> Rather, for your intention to *F* to count as causing you to intentionally *F*, it must have caused you to *F* by, first, causing you to plan out how to *F* (“I will kill him by shooting him dead”) and this process of planning then causing you to *F* in the way that your plan details.<sup>37</sup> Furthermore, and most pertinently for us, intuition suggests that your intention to kill him did not satisfy its constitutive aim here. This is good evidence that, in general, your intention to *F* only counts as having satisfied its constitutive aim if it causes you to *intentionally F*. Hence, we should think that your intention to *F* must represent itself not just as the cause of your *F*-ing but also as causing you to intentionally *F*.

Second, it is not enough for your intention to *F* to count as having satisfied its constitutive aim for it to have caused you to intentionally *F*—that is, to *F* as a result of planning how to *F* and in the way detailed by your plan—in *any old way*. Rather, it must have caused you to intentionally *F* *in the right kind of way*—namely, by exerting *rational pressure* on you to start planning how to *F* and this process of planning then bottoming out in a way that causes you to *F* in the way detailed by your plan. We regard your intention to *F* as having failed

36 Davidson, “Freedom to Act.”

37 Harman, “Practical Reasoning”; Paul, “Deviant Formal Causation.”

to satisfy its constitutive aim if it causes you to intentionally *F* in some way *other* than through it having exerted rational pressure on you to plan out how to *F*. Take the following case: you are extremely busy at work over the Christmas period and you are unsure whether you ought to fly home for Christmas. After some reflection, you decide that you will fly home after all. You consequently form an intention to book flights home for Christmas. However, given all the cognitive pressures you are under, you soon forget all about your intention to do this. Nevertheless, your earlier awareness of your intention causes a chain of festive thoughts that ends up causing you to weigh up the reasons for and against flying home for Christmas. In light of this practical deliberation, you then form a (second) intention to book flights home, one that prompts you in the normal way to actually do so—that is, by exerting rational pressure on you to plan how to bring it about that you book said tickets and that process eventually causing you to book the tickets in the way detailed by your plan. Here your initial intention to book flights home for Christmas did indeed cause you—via a deviant causal chain—to intentionally book flights home. But, intuitively, this intention did not satisfy its constitutive aim. Only your second, later intention to book flights home—the one that caused you to do so by exerting *rational pressure* on you to plan how to do so, and so on—seems to have satisfied its constitutive aim. This is good evidence that, in general, your intention to *F* only counts as having satisfied its constitutive aim if it causes you to intentionally *F* *in the right kind of way*—that is, by exerting *rational pressure* on you to plan out how to *F* and this process of planning then causing you to *F* in the way detailed by your plan. In other words, granting the truth of the standard causal theory of intentional action, your intention to *F* only counts as having achieved its constitutive aim if it causes you to intentionally *F* by exerting *rational pressure* on you to intentionally *F*. Hence, we should think that your intention to *F* must represent itself not just as the cause of your intentionally *F*-ing but as causing you to intentionally *F* by exerting *rational pressure* on you to intentionally *F*.

#### 2.4. *The Radical Cognitivist's Theory of Intention*

We have now seen why it should be agreed that your intention to *F* by its nature represents itself as causing you to intentionally *F* through exerting rational pressure on you to intentionally *F*. This is simply (a precisification of) the standard view in the literature concerning the propositional content of intentions—namely, that my intention to *F* has the content “I will intentionally *F* as a result of this very mental state causing me in the right kind of way to intentionally *F*.”<sup>38</sup> This points the way for the radical cognitivist: your

38 Harman, “Practical Reasoning.”

intention to  $F$  cannot just be your belief that you will  $F$ . No—it must be your belief that you will intentionally  $F$  as a result of this very mental state exerting rational pressure on you to intentionally  $F$ . Let us call this belief your “rationally reflective prediction that you will intentionally  $F$ .” We say that it is reflective because it represents itself as the cause of your intentionally  $F$ -ing. So, I say that it is rationally reflective because it represents itself not just as the cause of your intentionally  $F$ -ing but also as the cause of your intentionally  $F$ -ing *in a certain kind of way*—namely, through exerting *rational pressure* on you to intentionally  $F$ . This, I claim, is the correct formulation of the radical cognitivist’s theory of intention: your intention to  $F$  is just your belief that you will intentionally  $F$  as a result of this very belief exerting rational pressure on you to intentionally  $F$ . More concisely: your intention to  $F$  is just your rationally reflective prediction that you will intentionally  $F$ .

*Intention:*  $S$  intends to  $F =_{df}$   $S$  believes that  $S$  will intentionally  $F$  as a result of this very belief exerting rational pressure on  $S$  to intentionally  $F$ .

One obvious problem: this formulation entails that motor predictions concerning how your muscles are just about to contract—the radical cognitivist’s candidate for motor commands—do not count as intentions since they are not rationally reflective. You do not believe that you need to plan out how you will perform the intended motor contractions in question. Rather, such motor commands simply causally suffice for the occurrence of their represented muscle contractions. However, this problem is easily solved through a small tweak to our theory: intentions—other than motor commands—are all rationally reflective predictions. And motor commands are just your *reflective* predictions about how your muscles are just about to contract—that is, your predictions that your muscles are just about to contract as a result of these very predictions.

A second problem: Does this radically cognitivist theory of intention presuppose the notion of an intentional action and thus of a plan? In order to (noncircularly) theorize intentions in terms of the notion of an intentional action or a plan, we must already have a prior understanding of intentional actions and plans that makes no reference to intention. Of course! But the radical cognitivist can analyze intentional action and planning in wholly cognitivist terms without reference to the notion of an intention. First, she can follow the standard view on the nature of intentional action—the causal theory—in holding that you count as intentionally  $F$ -ing just when you  $F$  as a causal consequence of your planning out how to  $F$  and in the way detailed by your plan to  $F$ .<sup>39</sup> And, as we saw before, for the radical cognitivist, what it is for you to

39 Paul, “Deviant Formal Causation.”

be planning how you will *F* is just for you to be inferring the best explanation of your predicted act of *F*-ing where this reasoning would conclude—if completed—in a reflective motor prediction that suffices for action. The radical cognitivist faces no circularity here. Thus, the radical cognitivist can hold that your intention to *F* represents itself as causing you to *F* by prompting you to begin inferring the causes of your *F*-ing, a process that bottoms out—if completed—in action. This is what it is, for the radical cognitivist, for your intention to *F* to represent itself as causing you to intentionally *F*.

Can this formulation of the radical cognitivist's theory of intention explain how a mere belief can occupy the functional role of intention—that is, be both conduct controlling and plan driving—purely through appeal to cognitive states, episodes of theoretical reasoning, and epistemic norms? Can it correctly class instances of genuine intention, by the lights of common sense, as intention and the cases of mere foresight as foresight? I think so. This “rationally reflective” content suffices to render a belief, in the radical cognitivist's austere psychology, both conduct controlling and plan driving.

How precisely does this work? Take the earlier case: you are attending a fancy party thrown by a host who is a well-known prude. You decide to tell a risqué joke, aiming to entertain your audience, while knowing that it will offend your host. Intuitively, you count as intending to tell the joke but merely foreseeing that you will offend the host. According to the radical cognitivist, your intention to tell the joke is just your rationally reflective prediction that you will intentionally tell the joke. This state is apt to constitute your intention here because it exerts decisive rational pressure on you, in concert with the right background beliefs, to start planning out how you will tell the joke, and thereby counts as conduct controlling and plan driving.

Let us break down how this is supposed to go. You believe that you will tell the joke, that you will tell the joke as a result of this very belief, and that this belief will cause you in the right kind of way to *intentionally* tell the joke—namely, that it will first cause you in the right kind of way to starting planning out how you will tell the joke by exerting rational pressure on you in tandem with background beliefs to begin planning, and, second, that this planning will then cause you to tell the joke in the way it details. This is the content of your rationally reflective prediction spelled out. Now, how does this rationally reflective prediction prompt you, at the appropriate time by your lights, to start planning out how you will tell the joke? Well, suppose that you believe that you will only intentionally tell the joke, as an upshot of your prediction that you will intentionally tell the joke, causing you in the right kind of way to do so, if you start planning right now how you are going to tell it. Granting this, given the norms of theoretical rationality, you must (rationally) either give up your

rationally reflective prediction that you will intentionally tell the joke or start planning out how you will tell it.<sup>40</sup> Suppose again that you have more reason to believe that you will intentionally tell the joke (as a causal upshot, in the right kind of way, of this very belief) than you have to believe that you will *not* start now planning out how you will tell it. Now the psychic move that does the least epistemic violence to your web of beliefs—and that you are therefore required by epistemic rationality to make—is to begin inferring the causes of your telling the joke (that is, to start planning). Consequently, you will—insofar as you are rational—start planning out how you will tell the joke. This process of planning will—if completed—bottom out in reflective motor predictions that will cause you to tell the joke in the way detailed by your plan. Hence, your rationally reflective prediction that you will intentionally tell the joke counts as both plan driving and conduct controlling. This is why this rationally reflective prediction is apt to constitute your intention to tell the joke.

The *reflective* character of your prediction is playing an important role here: if you believed that you would tell a joke without this action being caused by your prediction that you would do so, then your prediction that you would tell this joke would not exert any rational pressure on you to start planning out how you will tell it. After all, you would believe that you would tell the joke as a result of some other impulse, without this very belief prompting you to plan out how. You would therefore face no stark choice between giving up your belief that you would tell the joke or starting to plan out how to tell it. You could rationally hold on to your belief that you will tell the joke, yet fail to start planning out how. Hence, this belief exerts no rational pressure on you to start planning. In this way, then, we can see how the fact that your prediction is reflective is essential to it being apt to occupy the functional role of an intention.

So too is the fact that you predict that you will *intentionally* tell the joke. After all, if you believed (somehow) that you would *unintentionally* tell the joke as a result of your belief that you would tell that joke—like in the pessimistic actor case—then your belief would not exert any rational pressure on you to start planning out how to tell that joke. How so? Well, just like the pessimistic actor, you would believe that your belief that you will tell the joke will causally suffice alone for you to actually tell the joke without your having to plan out how to go about telling it. You would therefore face no stark choice between

40 Or, you could give up your background belief that you will only intentionally tell the joke, as a upshot of your prediction that you will intentionally tell the joke causing you in the right kind of way to do so, if you start planning right now how you are going to tell it. Of course, if you have this background belief, then you are likely to be warranted in holding it, so it would likely be theoretically irrational of you to revise this belief. (I am omitting this caveat henceforth for ease of exposition.)



giving up your belief that you will intentionally tell the joke and starting to plan out how you will tell it. Hence, this belief exerts no rational pressure on you to start planning. In this way, then, the fact that your prediction represents your predicted action as being *intentional* is also essential to that prediction being apt to constitute an intention.

Last, the fact that your prediction is *rationally* reflective in character is also pertinent. If you believed that you would intentionally tell the joke as a result of your belief that you will intentionally tell the joke causing you to plan out how to do so in a *deviant* way—say, by prompting you to consider the reasons for telling a joke, and so on, like in the case of your booking flights home for Christmas—then said belief would not exert any rational pressure on you to begin planning. Why? Well, there would be no rational pressure to begin planning exerted by your reflective belief here since your predicted act of intentionally telling the joke is accounted for in a way—namely, the deviant way—that does not involve your reflective prediction that you will intentionally tell the joke causing you in the right kind of way to tell it—that is, through rationally pressuring you to plan out how you will tell it. You can rationally hold on to this merely reflective prediction that you will intentionally tell the joke while abstaining from planning out how you are going to tell it. Hence, this merely reflective prediction about what you will intentionally do exerts no rational pressure on you to start planning. In other words, the fact that your reflective prediction that you will tell the joke represents itself as causing you to tell the joke *in the right kind of way*—through exerting rational pressure on you to plan, and so on—is essential to this prediction being apt to constitute an intention. In short, your prediction being *rationally* reflective is necessary for it being such that it can exert rational pressure on you to begin planning and thus being apt to constitute an intention. And, in sum, a rationally reflective prediction that you will intentionally *F* is necessary and sufficient, on the radical cognitivist's psychology, for you to be in the kind of plan-driving and conduct-controlling state that is apt to constitute an intention to *F*.

Let us now turn to your mere foresight that you will offend your host. Can the radical cognitivist accommodate this? Yes—according to the radical cognitivist, this prediction counts as mere foresight because it is not a rationally reflective prediction concerning what you will do. Indeed, it is not even a *reflective* prediction: you do not believe that you will offend your host as a result of your belief that you will offend him. You believe that you will offend your host, even if you do not expect to offend him. Your rationally reflective belief that you will tell a joke will take care of that. Nor do you believe that you will offend your host as an upshot of planning out how you will offend him. On the contrary, you believe that you will offend your host as a causal upshot of some

other action (telling the risqué joke) you are planning. Hence, your prediction that you will offend your host exerts no rational pressure on you to start planning how to do that: you face no stark choice between giving up your belief that you will offend your host or starting planning how you will do it. In this way, the radical cognitivist can correctly class this prediction as an instance of mere foresight, not intention.

We have now seen how the radical cognitivist can explain how mere belief can occupy the functional role of intention purely through appeal to the sparse resources to which she has limited herself—namely, by attributing (the beliefs that constitute) her intentions the same propositional content the standard view on the nature of intention does. This account also allows the radical cognitivist to accommodate the commonsense distinction between intention and mere foresight. I now want to draw attention to the fact that the radical cognitivist's theory of intention accommodates another key element of the common ground on the nature of intention—namely, the distinction between your instrumental intentions and telic intentions. Now, you *instrumentally* intend to *F* just when you intend to perform action *F* as a *means* to bringing about some end *E* that you already intend to bring about. And your intention to *F* is *telic* just when you intend to perform action *F* as an *end*, for no further purpose. The radical cognitivist can make sense of this distinction in her own terms. First, she can say that you *instrumentally* intend to *F* just when (1) you rationally reflectively believe that you will intentionally *F* and (2) this belief is warranted in light of your means-end belief that you can (help) bring it about that you *G* by *F*-ing and your rationally reflective belief that you will intentionally *G*. Second, she can say that you have a *telic* intention to *F* just when (1) you have a rationally reflective belief that you will intentionally *F* and (2) this belief does *not* constitute, for the radical cognitivist, an instrumental intention to *F*. It clearly follows from these definitions that for the radical cognitivist every intention is either instrumental or telic. In this way, then, the radical cognitivist can recover the mutually exclusive and exhaustive partition of intentions into their instrumental and telic varieties that is recognized by the common ground on the nature of intention.

### 3. INTENTION AND THE ORIENTATION OF PRACTICAL REASON

I want to conclude by considering one last problem the radical cognitivist's theory of intention might be thought to face, which concerns the forward-looking orientation of practical reason. It is part of the common ground that practical reasoning commences with you attending to the outcomes you could bring about. Indeed, practical reasoning seems by its nature to involve *only*

consideration of the likely upshots or the intrinsic features of the actions available to you. It is essentially forward looking in nature. This contrasts with theoretical reasoning, which is often backward looking in orientation: “Why am I so confident that the sun will rise tomorrow? Because in my past experience it has risen every day.” In sum, practical reason seems by its nature to involve only contemplation of future states of affairs—those that might be brought about by action—whereas theoretical reason is not restricted in this way: theoretical conclusions concerning the future can be arrived at after attention only to states of affairs that obtained in the past.

The radical cognitivist’s conception of practical reason as a species of theoretical reason might therefore be thought to face difficulties accounting for the forward-looking orientation of practical reason. After all, if practical reason is just a branch of theoretical reason, and if theoretical reason can be backward looking in orientation, then why should practical reason be essentially forward looking in nature? What, for the radical cognitivist, could explain this? Restricting ourselves here just to her theory of intention, it looks like it is part of the common ground on the nature of intention that intentions to act are by their nature only held in light of forward-looking considerations concerning the intrinsic features or likely upshots of the intended action in question. You only intentionally act when you take that action to help bring about some outcome that you have taken as your end, for the sake of which you are performing that action. No rational agent ever intends to perform some action without taking it to promote their ends. This is part of the common ground on the nature of intention in philosophical psychology.

But beliefs, in contrast, can be held in light of backward-looking considerations. This remains as true for your rationally reflective beliefs about what you are going to intentionally do as it is for any of your other beliefs. This should lead us to doubt whether the radical cognitivist can accommodate the platitude that intentions are by their nature only held in light of forward-looking considerations concerning the intrinsic features or likely upshots of the intended action in question. By way of illustration, consider the following case concerning a seer’s prophesy: the radical cognitivist is committed to holding that intentions are beliefs with a certain special content *P*. But surely, for any arbitrary content *P*, a reliable—by your lights—seer could inform you that *P* is the case. In that case, according to the radical cognitivist, you will—if rational—form an intention to act in light of this testimony. But that seems absurd: a seer’s prophesy can at most warrant you to form mere foresight. To take the radical cognitivist’s rationally reflective theory of intention that I am hawking here: suppose that a reliable seer, by your lights, informs you that you will intentionally kill your father as a result of your belief that you will intentionally

murder him, which you will now form in light of this very prophesy, causing you to intentionally murder him in the right kind of way—namely, by rationally pressuring you to intentionally murder him. (In other words, the seer informs you that the content of a rationally reflective belief that you will intentionally murder your father is true). This prophesy of the seer, given your background belief that the seer is reliable, warrants you to form the rationally reflective prediction that you will intentionally murder your father. Suppose that, being rational, you now form this rationally reflective prediction. Radical cognitivism about practical reason now seems to imply that you have formed with warrant the intention to murder your father. But this seems absurd: in light of this testimony, you are at most warranted to form the mere foresight that you will murder your father, not an intention to do so. The radical cognitivist is failing to accommodate the platitude that intentions are essentially only held in light of forward-looking considerations and not backward-looking ones such as the seer's testimony.

However, I think that the radical cognitivist has the resources to accommodate common sense here—namely, that the seer's testimony that you will murder your father could not warrant you to form an intention to do just that, and, more generally, that you can rationally intend to perform some action only if you believe that so acting will help bring about one of your ends. How might she go about establishing this? Well, you have a lifetime of evidence that you only ever perform actions as ends or else as means to some further end.<sup>41</sup> Consequently, you cannot rationally believe that you will perform an action as anything other than as an end or else as a means. And this straightforwardly entails that you can rationally form the intention to kill your father in light of the seer's testimony only if you can rationally believe that you will perform this action as an end or as a means. But, as I shall argue, you cannot now, right after hearing the seer's testimony, rationally believe that you will kill your father as an end. Consequently, you cannot now rationally form a *telic* intention to kill your father as an end. And you cannot now rationally form an *instrumental* intention to kill your father as a means to some further end either, because such an intention must be formed in a certain kind of way, a way that does not obtain in the case of the seer's testimony. Since all intentions are either telic or instrumental, it follows that you cannot rationally form an intention to murder your father in light of the seer's testimony *tout court*.

Why can you not now rationally believe that you will kill your father as an end, for no further purpose? Well, killing your father is simply *not* the kind of

41 The radical cognitivist can say that you perform action *E* as an end just when you perform *E* as a result of your telic intention to *E*, and that you perform action *M* as a means to some further end just when you perform *M* as a result of your instrumental intention to *M*.

thing that you (or anybody, for that matter) would ever seek to bring about as an end—and you know it. It is the kind of thing that could only ever be a *means* to some further end—revenge for some past grievous wrong, or to save the life of your child, for example. What outcomes do you have a history of acting to bring about as an end? Speaking for myself, my whole life has been at bottom a combination of looking out for myself and looking out for others. My ends—the outcomes I pursue for no further purpose—have ultimately been just my self-interest, the good of others, and what morality requires of me. This is what my life has unerringly been. So, I think, has everyone else's life.<sup>42</sup> Consequently, it just does not make any sense to you that you will murder your father as an end. Hence, you cannot rationally believe that you will so act. Thus, for the radical cognitivist, you cannot in light of the seer's testimony rationally form a telic intention to kill your father as an end.

And why can you not, right after hearing the seer's testimony, rationally form an *instrumental* intention to kill your father as a means to some further purpose? Well, instrumental intentions are by their nature formed in light of a telic intention to bring about some outcome and a means-end belief that you can (help) bring about that outcome by performing the action that is the object of your instrumental intention. The radical cognitivist, as we saw before, is able to accommodate this in the following way: you instrumentally intend to *F* just when (1) you rationally reflectively believe that you will intentionally *F* and (2) this belief is warranted in light of your means-end belief that you can (help) bring it about that you *G* by *F*-ing and your rationally reflective belief that you will intentionally *G*. Now, as these accounts make clear, you can instrumentally intend to *F* only if you *formed* that intention in light of a telic intention to bring about some outcome and your means-end belief that you can (help) bring about that outcome by *F*-ing. But your belief that you will murder your father was *not* formed in such a way. You did not infer that you would murder your father from your rationally reflective belief that you would intentionally bring about some outcome *O* and your means-end belief that you could (help) bring about *O* by murdering your father. No—you formed this belief in light of the seer's testimony. Hence, this belief could not, on the radical cognitivists' account, constitute an instrumental intention to murder your father. In this

42 Some caveats: many may have pursued ends that cannot be conceived as prudent, pro-social, or moral ends—for example, epistemic ends of acquiring knowledge for its own sake or religious ends such as the worship of God. Very plausibly, many theists may take the worship of God to be an end that is performed for neither their own self-interest, the good of others, nor anything falling under the dominion of morality. And many (professional and nonprofessional) philosophers, scientists, and historians, etc., may pursue knowledge as an end and not for the sake of their prudence, etc.

way, then, we arrive at the conclusion that the seer's prophesy cannot, in the radical cognitivist's picture, warrant you to form the instrumental intention to murder your father.

Now, since all intentions are either telic or instrumental, it follows that you cannot rationally form an intention to murder your father in light of the seer's testimony. Rather, the seer's testimony warrants you only to form the mere foresight that you will kill your father: given your web of beliefs, you cannot rationally believe him when he tells you that you will kill your father as a result (in the right kind of way) of *this* very belief that you now form in light of his testimony. Instead, you can only rationally form the (nonreflective) belief that you will kill your father as a result of some other belief that you will form at some later date. This accords with our commonsense intuitions about the case of the seer's prophesy. And this result generalizes: your lifetime of evidence that you only ever perform actions as ends or else as means to some further ends ensures that you cannot rationally believe that you will perform an action as anything other than an end or else a means. And this straightforwardly implies that a rational agent can never intend some course of action without taking it to promote one of her ends. In this way, then, the radical cognitivist can accommodate the forward-looking orientation of practical reason in the domain of the theory of intention.

#### 4. CONCLUSION

This completes my attempt to develop and defend the radical cognitivist's theory of intention and means-end practical reasoning. Intentions in this picture are rationally reflective predictions about what you are going to intentionally do that exert rational pressure on you to start planning. And means-end reasoning is a species of inference to the best explanation of your predicted actions that terminates—if completed—in action. Unlike other cognitivists about practical reason, the radical cognitivist reduces practical normativity to a variety of epistemic normativity, and therefore faces unique challenges in accounting for the basic desiderata on any adequate theory of intention and means-end practical reasoning. Here I showed how mere beliefs can occupy the functional role of intention, and how means-end practical reasoning can be a species of theoretical inference, purely through appeal to cognitive states, episodes of theoretical reasoning, and the epistemic norms governing them.

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