Meeting of the Aristotelian Society held at Senate House, University of London, on 30 April 2007 at 4:15 pm.

IX—How Does Coherence Matter?

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Recently, much attention has been paid to 'rational requirements' and, especially, to what I call 'rational requirements of formal coherence as such'. These requirements are satisfied just when our attitudes are formally coherent: for example, when our beliefs do not contradict each other. Nevertheless, these requirements are puzzling. In particular, it is unclear why we should satisfy them. In light of this, I explore the conjecture that there are no requirements of formal coherence. I do so by trying to construct a theory of error for the idea that there are such requirements.

In recent work, particularly in value theory, it has become common to say that we are 'rationally required' to see to it that our attitudes are coherently related with one another, whatever else may be the case. The intuitive idea is that incoherent attitudes give rise to a certain normative tension, or exert a kind of rational pressure on each another, and this tension, or pressure, is relieved just when one of the attitudes is revised.[1] The putative rational requirements that have attracted perhaps the most attention are what I will call 'requirements of formal coherence as such'. Perhaps the simplest of these is:

> *Non-Contradiction* (N): One is rationally required (if at *t* one believes *p*, then at *t* one does not believe not-*p*).[2]

There are also said to be requirements of formal coherence as such to avoid beliefs that are logically inconsistent more generally, to have beliefs that are closed under logical consequence, to have degrees of belief that satisfy the axioms of probability, to intend the

[1] See, for example, Broome (1999; 2005), Wallace (2001), and Scanlon (2007).

[2] Although I believe that rational requirements are best understood as process requirements, I formulate N as a 'state' requirement governing synchronic states, rather than as a 'process' requirement governing diachronic transitions between them. For present purposes, it makes little difference.

believed necessary means to what one intends, and to avoid intending what one believes one cannot jointly achieve. As John Broome observes, these requirements of formal coherence as such are 'wide scope', which is to say that there is no attitude that one must have, or lack, in order to satisfy them. This is because they require formal coherence as such, and there is no attitude that one must have, or lack, to be formally coherent.[3] Although I will discuss some other putative rational requirements,[4] I focus on requirements of formal coherence, both because they occupy a special place in philosophy, and because they pose a special puzzle.

According to a persistent strain of philosophical thought, these requirements are the foundation, or sole fastness, of normativity. Our desires for ends may call for desires for means, Humeans say, but there is nothing beyond our desires to which our desires are answerable. And there are theoretical analogues, such as the austere Bayesianism that sees nothing beyond probabilistic coherence and conditionalization. Others, most notably Kantians, aim to vindicate more ambitious norms, such as the Moral Law itself. But they too believe that vindicating these norms requires showing that they are relatives, or analogues, of requirements of formal coherence as such.[5]

However, if we reflect on requirements of formal coherence from the first-person standpoint of deliberation, then they can come to seem, if not initially, then on reflection, puzzling. From the stand-

[3] Apart from this exception, that probabilistic coherence requires a degree of belief of one in logical truths and of zero in logical falsehoods.

[4] In §III, I discuss Believed Reason: the requirement of coherence between beliefs about our reasons for attitudes and those attitudes themselves; and, in §IV, internalist requirements of epistemic justification: narrow-scope requirements of informal coherence between cognitive states (beliefs and perceptual states). A third class might be internalist requirements of practical justification: narrow-scope requirements of informal coherence among cognitive states with non-normative contents and intentions or desires. See Parfit (*ms.*), Setiya (2007), Smith (2004b), and Wedgwood (2003). While these last two kinds are 'rational requirements,' in the sense of requirements governing relations among attitudes independently of anything beyond those attitudes, they stretch our ordinary attributions of 'irrationality', which are restricted to cases in which the subject is more immediately at odds with himself. It was this more common sense of 'rationality' that I mostly had in mind in Kolodny (2005), although I was unclear about this. Note also that, to the extent that any of the three classes of rational requirements discussed in this note is defined in terms of reasons, it is unsuited to the role discussed in the next paragraph.

[5] Compare the rationalist position described by Smith (2004a, p. 250): 'If morality requires some limited form of altruism then … the principle of limited altruism is a principle … on all fours with *modus ponens* and *modus tollens* and the principle of means–ends.'

point of theoretical deliberation—which asks 'What ought I to believe?'—what ultimately matters is simply what is likely to be true, given what there is to go on. From the standpoint of practical deliberation—which asks 'What ought I to do?'—what ultimately matters is simply what would be choiceworthy, because it would be, say, pleasurable or right. It is unclear how formal coherence in itself could matter in one of these ways. After all, formal coherence may as soon lead one away from, as toward, the true and the good. Thus, if someone asks from the deliberative standpoint 'What is there to be said for making my attitudes formally coherent as such?' there seems, on reflection, no satisfactory answer. In addition to this 'Problem of Normativity', as I call it, there is also the 'Problem of Conflict'. Some requirements of formal coherence not only are not explained by a concern for the true and the good, but moreover would forbid what that concern requires. If there are such requirements, then, no matter how conscientious and informed we are, we cannot help but be either irrational, or unreasonably unconcerned with the true and the good.

Animated by these problems, I explore a conjecture: that there are no requirements of formal coherence as such. I ask whether we can explain, with other resources, the phenomena that make them plausible. I try to make a case for the optimistic answer, that we can. Requirements of formal coherence seem plausible, I suggest, because they would explain certain 'violation claims'—to the effect that when our attitudes are formally incoherent we violate a requirement—and certain 'satisfaction claims'—to the effect that when we make our attitudes formally coherent we satisfy a requirement. We may be able to explain several of the violation claims, I suggest, by appealing instead to 'what reason requires': that is, to what we ought to believe or choose given what matters from the standpoint of deliberation. The attitudes that reason requires, in any given situation, are formally coherent. Thus, if one has formally incoherent attitudes, it follows that one must be violating some requirement of reason. The problem is not, as the idea of requirements of formal coherence as such suggests, that incoherent attitudes are at odds with *each other*. It is instead that when attitudes are incoherent, it follows that one of these attitudes is at odds with the *reason* for it—as it would be even if it were not part of an incoherent set. This, in turn, provides resources for explaining the

satisfaction claims, or at least their appeal.[6]

However, this error theory has several points of stress. It rejects intuitions that some may endorse, and it relies on premisses that others may doubt. So I am not confident that I rule out the more pessimistic, if more interesting, answer: that while we cannot find a place for requirements of formal coherence as such, we cannot do without them either.

In §§I, III, and IV, I try to construct an error theory for N, pausing in §§II and IV to spell out the Problems of Normativity and Conflict. In §V, I ask whether this error theory can be extended to other putative requirements of formal coherence as such. I conclude, in §VI, by discussing one source of the appeal of the view that requirements of formal coherence as such are the core or basis of normativity. This is the idea that they are 'undeniable' or 'inescapable' in a way in which no other normative claims can be.

I

An Error Theory for N: *Explaining the Violation Claim*. We are attracted to N, in large part, because it would explain:

> *Violation Claim about Non-Contradiction* (VN): If one believes at *t* that *p* and believes at *t* that not-*p*, then one violates some requirement.

It may seem that the requirement in question must be N. It may seem that it cannot be a requirement of reason, since we can know that one violates it without knowing anything about one's reason. But this is too quick.

In what follows, I use, somewhat stipulatively, the mass noun, 'reason', to mean not the faculty, but instead the collection of considerations on the basis of which we settle the questions: 'What to believe? What to choose?'—that is, the material of first-person deliberation, within which these questions are asked.[7] So understood,

[6] Without meaning to associate them with any errors in the present paper, I sense that broadly the same line is pursued by Raz (2005), Scanlon (2007), and Schroeder (*ms*.).

[7] This owes much to Hieronymi (2005). I do not mean to suggest that we usually deliberate before believing or acting, let alone in explicitly normative terms.

one's reason for a belief or choice might be a function of one's attitudes, contents of one's attitudes, facts that one has certain attitudes, or facts independent of one's attitudes. It depends on the substantive question of what matters within deliberation.[8]

Focusing on the case of belief, and bracketing (until §IV) what evidence[9] consists in, it is substantively plausible that:

> *Evidentialism*: There is reason for one to believe *p* only in so far as the evidence indicates, or makes it likely, that *p* is true, and there is reason for one not to believe *p* only in so far as the evidence indicates that *p* is false.

If we accept Evidentialism, then it is also plausible that:

> *Stronger Evidence* (SE): One has sufficient reason (i.e., reason permits one) to believe *p* only if the evidence indicates that *p* more strongly than it indicates that not-*p*.[10]

One 'lacks sufficient reason' to *X*, or 'reason does not permit' one to *X*, just when one ought not to *X* on the basis of one's reason. One intuitive argument for SE is that it explains:

> *Comparative Suspension* (CS): When the evidence that *p* and that not-*p* is evenly balanced, one is required neither to believe that *p* nor to believe that not-*p*.[11]

And we can gesture toward a deeper rationale for SE, if we analogize

[8] On some these possibilities, reasons and rationality may overlap. In Kolodny (2005), I more or less defined 'reasons' as facts independent of attitudes. Although I am still drawn to this view as a substantive thesis, I am here defining 'reasons' in a less committal way, as what matters in deliberation.

[9] I use the word 'evidence' in a broader sense than usual.

[10] SE states only a necessary condition. First, there may also need to be sufficient evidence, in an absolute sense, to decide the question. Second, it may need to be the case that one either has sufficient reason, of a non-evidential sort, to make up one's mind, or will make up one's mind, whether *p*. See Brady (*ms*.), however, for doubts that the question whether to make up one's mind can be so neatly distinguished from the question how to make it up. Note also that the threshold of sufficient evidence may depend on the importance of the question, a point made by Fantl and McGrath (2002), among others.

[11] Notice that N cannot explain CS. If SE fails, then epistemic reason will sometimes permit both believing *p* and believing not-*p*. While N would prohibit adopting both beliefs in such cases, N would not prohibit adopting one of the two beliefs arbitrarily.

epistemic reason to a kind of decision theory.[12] Of course, it is unclear how far this analogy can be taken, and there may well be another rationale for SE. But the analogy provides at least a suggestive model. Suppose that one will have, or has sufficient reason to have, an opinion whether p, for each proposition p in some finite set, S. Now understand of a 'decision' as a set of beliefs (not necessarily voluntarily formed, of course) whose contents belong to S, an 'outcome' as a possible world, and the 'payoff' of a given decision at an given outcome as the sum, for all p in the decision, of $T(p)$—the value of a true belief on the question whether p—if p is true and $-F(p)$—the value of avoiding a false belief on the question whether p—if p is false, where $T(p)$, $F(p) > 0$.[13] The 'probability' that p is the degree of evidential support that p, $0 \leqslant E(p) \leqslant 1$. If, as seems intuitive, the 'decision rule' is maximizing expected value, then epistemic reason permits believing that p only if:

$$E(p)*T(p) - E(p \text{ is false})*F(p) \geqslant 0.$$

Suppose first that $E(p \text{ is false}) = E(\text{not-}p)$. And suppose next that $F(p) > T(p)$: that epistemic reason is inherently conservative, caring more about avoiding falsity than acquiring truth. Then epistemic reason permits the belief that p only if:

$$E(p) > E(\text{not-}p),$$

which is just SE.[14]

Whatever its rationale, SE entails:

[12] This is a familiar idea, although typically pursued with grander ambitions. See Percival (2002) for a survey. It is often objected that this idea implies that epistemic reason would require us to believe something for which we have poor evidence, if believing it would increase the probability of believing more truths and fewer falsehoods overall. My use of the idea here does not imply this, because the only probabilities relevant to believing p are the degrees of evidence that p is true or false (and also because the only relevant truths and falsehoods are those on which one will have, or has sufficient reason to have, an opinion).

[13] I assume that p is false and not-p are answers to the question whether p, so that $T(p) = T(p \text{ is false}) = T(\text{not-}p)$ and $F(p) = F(p \text{ is false}) = F(\text{not-}p)$.

[14] Since epistemic reason requires decisions on the basis of degrees of evidence, rather than on the basis of degrees of belief, this model does not require that the agent have degrees of belief, much less that they be probabilistic. This is important, given the doubts about formal requirements of probabilistic coherence raised in §V. However, if degrees of evidence are not probabilistic, then epistemic reason, so understood, may issue conflicting directives. It may seem implausible that degrees of evidence are probabilistic: in particular, that the evi-

> *First Comment on Reason Patterns* (RI): In any given case, either one lacks sufficient reason to (i.e., reason requires one not to) believe *p*, or one lacks sufficient reason to believe not-*p*.

And RI explains VN. If someone believes *p* and believes not-*p*, then either he believes *p* without sufficient reason, or he believes not-*p* without sufficient reason. So he violates some requirement of reason. If we do not know anything about his evidence, then we do not know *which* requirement he violates. But we know that he violates at least *one* of these.

N and RI are different claims. Whereas N is a wide-scope, rational requirement of a disjunction of responses, RI is a disjunctive observation about possible, or actual, narrow-scope requirements of reason. If one has contradictory beliefs, then one satisfies N no matter which belief one gives up. One satisfies the requirements in RI, by contrast, only if one gives up the specific belief, or beliefs, for which one lacks sufficient reason. Put another way, N requires a change from one only if one both believes *p* and believes not-*p*. By contrast, the requirements in RI may require a change from one even if one has only one of the beliefs. If one lacks sufficient reason to believe *p*, one should drop that belief, *whether or not* one believes not-*p*. In other words, in the case of N, it is the tension between *the beliefs* that necessitates a change, whereas in the case of the requirements in RI, it is the tension between (at least) *one of the beliefs and the evidence* that necessitates a change. More fundamentally: N represents a concern with the coherence of our beliefs as such. The possible, or actual, requirements mentioned in RI, by contrast, represent a concern to follow the evidence toward the true and away from the false.

We might now be drawn to a simple error theory for N. What we really accept is:

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dence for any two propositions stands in some precise ratio. By way of a reply, we might adopt the pretence that, for every proposition, there is a definite degree of evidence that is probabilistic, but for some propositions, their degrees of evidence are, so to speak, unknown for the purposes of the epistemic decision. If not enough is known to settle whether $E(p)/E(\text{not-}p) \geqslant F(p)/T(p)$, then we need some other decision rule: perhaps maximin, or maximizing expected value on the assumption of equal probability. With either of these rules, $F(p) > T(p)$ would also explain:

> *Absolute of Suspension of Belief*: When there is not enough evidence to decide the question whether *p*, one is required neither to believe that *p*, nor to believe that not-*p*.

(RI) In any given situation, either it will be the case that (one is required by reason not to believe *p*), or it will be the case that (one is required by reason not to believe not-*p*).

However, careless about scope and the distinction between reasons and rationality, we confuse this with:

(N) In any given case, one is required by rationality (either not to believe *p* or not to believe not-*p*).

And so we casually assent to N. If we paid attention to how N differs from RI, however, we would simply disavow N.[15]

This simple error theory surely captures much of our attraction to N. Many who casually endorse the wide-scope, Broomian N may really have RI in mind.[16] And it would be entirely congenial to my ap-

[15] It might be objected: 'RI entails N, so long as disjunctions may be introduced within the scope of "required", as Standard Deontic Logic allows.' If disjunction introduction is permissible, then RI also entails an endless list of 'idle' principles like N#: One is required (either not to believe *p*, or not to believe not-*p*, or to dance the Hokey-Pokey); or N##: One is required (either not to believe *p*, or not to believe not-*p*, or both to believe *p* and to believe not-*p*). With Føllesdal and Hilpinen (1971) and Wedgwood (2006), one might defend idle principles by offering a pragmatic explanation of their seeming oddity. It is never conversationally appropriate to assert N# or N##, because we are always in a position to assert the more informative RI. But if N is merely an idle principle—if its only justification is that it follows, via disjunction introduction, from RI—then it is never conversationally appropriate to assert N either, because we are always in a position to assert the more informative RI. This indicates, as is anyway evident, that those who do endorse N do not view it merely as an idle principle. This might be because, as the simple error theory claims, they *confuse* it with RI. Or it might be because they accept the Satisfaction Claim about N below (which implies that N has a status that N## lacks). At any rate, the position that I am questioning is that N is something more than an idle principle. The claim that it is nothing more is largely sympathetic to my sceptical view. I am grateful to Ralph Wedgwood for suggesting this line of objection.

[16] In general, comments on reason patterns like RI are not well distinguished from requirements of formal coherence like N. For example, Darwall (2006) writes: 'Believing *q* is rational "relative to" there being reason to believe both *p* and if *p*, then *q*, respectively,' which suggests the comment on reason patterns:

(1) If one is required by reason to believe *p* and believe if *p* then *q*, then one is required by reason to believe *q*.

The next paragraph begins, 'The situation is exactly analogous in instrumental reasoning,' and ends, 'The practical analogue of *modus ponens* transfers rational support from the end and the belief to the means.' This suggests a comment on reason patterns:

If one is required by reason to intend *E* and believe that one *E*s only if one *M*s, then one is required by reason to intend *M*.

Yet sandwiched between those remarks is: 'The most that instrumental rationality can require is that one either take the means or give up either the end or the belief about the means indispensability,' which, on its face, suggests a rational requirement of formal coherence:

proach if this simple error theory captured all of our attraction to N. But I worry that it does not. Contrast two possible responses to believing *p* and believing not-*p*. First, one remains inconsistent, continuing both to believe *p* and to believe not-*p*. Second, one makes one's beliefs consistent, but 'against reason'. One ceases believing *p*, which is, in light of the evidence, sufficiently likely to be true that reason requires it, while continuing to believe not-*p*, which is, in light of the evidence, sufficiently likely to be false that reason forbids it. Still, this second response seems to satisfy some requirement that the first does not. So says:

> *Satisfaction Claim about Non-Contradiction* (SN): Suppose that one believes *p* and believes not-*p*. If one either ceases to believe *p*, or ceases to believe not-*p*, then one thereby satisfies some requirement that one would not satisfy if one continued both to believe *p* and to believe not-*p*.

This requirement cannot be one of reason, it seems, since the second, consistent response satisfies no requirement of reason that the first, inconsistent response does not. So, the requirement, it seems, must be N.

> One is required by rationality (if one intends to *E* and believes that one *E*s only if one *M*s, then one intends to *M*).

Moreover, in the appended footnote, Darwall describes rationality as being concerned with 'incoherent combinations of attitudes', and cites Broome's discussion of rational requirements of the wide-scope form. Consider, as another example, an epistemic rule described by Boghossian (2001):

> (ER2) If you are justified in believing *p*, and justified in believing that 'If *p*, then *q*', then believe *q* or give up one of the other beliefs.

On the one hand, if you really are *justified* in believing *p* and *justified* in believing 'If *p*, then *q*,' then you ought to deduce *q* and ought *not* give up *p* or if *p* then *q*. As comment (1) and Boghossian's similar principle (EP2) suggest, deducing *q* will produce a justified belief. Giving up one of the other beliefs is, by hypothesis, giving up a justified belief. On the other hand, if you believe *p* and believe if *p* then *q*, then the rational requirement of formal coherence,

> (2) You are rationally required (if you believe *p* and believe if *p* then *q*, then you believe *q*),

requires you either to believe *q*, or to give up one of those beliefs. But it requires this whether or not your beliefs are justified. Thus, (ER2) seems a kind of amalgam, with the antecedent of comment on reason patterns (1) and the consequent of requirement of formal coherence (2).

II

The Problem of Normativity. Why not then accept N? Because it is hard to see what can be said, within or to the first-person standpoint of deliberation, for satisfying N. It is clear what can be said for satisfying N 'with reason': by ceasing to believe not-*p*, which is sufficiently likely, given the evidence, to be false that reason forbids it, and continuing to believe *p*, which is sufficiently likely, given the evidence, to be true that reason requires it. But precisely what distinguishes N from RI, as we have just seen, is that one satisfies N just as well if one satisfies it 'against reason': if one ceases to believe *p* and continues to believe not-*p*.[17] If nothing can be said for satisfying N *even* in this way—if something can be said *only* for satisfying N with reason—then RI would appear to be the sole normative truth in the vicinity. Yet what can be said for satisfying N even in this way?

'There is *at least some pro tanto* reason to cease believing *p* in this case,' it might be said. 'It avoids the risk, however small, of a false belief.' First, since this reason is merely *pro tanto*, and is outweighed by reason to believe *p*, it is not clear how it can account for the stringency of N: its presumed status as a *requirement*, which it needs to explain SN. Second, since there is *pro tanto* reason of this kind against *any* belief, in *any* situation, it captures nothing particular to resolving incoherence. Finally, there is equally *pro tanto* reason *for* any belief, in any situation; it is a chance to believe something true. So if this appeal to 'at least some *pro tanto* reason' supports a principle recommending coherence, then it supports equally a principle recommending incoherence.

Next one might grant that, when we satisfy N by ceasing to believe *p*, we do not *in fact* come closer to what reason requires: believe more of what, in light of the evidence, is (sufficiently) likely true and believe less of what, in light of the evidence, is (sufficiently) likely false. But one might suggest we still take *insufficient*, although perhaps necessary, *means* to coming closer to what reason requires.

[17] Might it be argued that no way of satisfying N is ever against reason? First, if avoiding falsity were infinitely more important than acquiring truth, then this would be so. Second, if the 'decision rule' were maximax, then ceasing to believe *p* would not be against reason. Not believing *p* and believing not-*p* maximizes the payoff in some outcome, whereas believing *p* and believing not-*p* maximizes the payoff in no outcome. However, satisfying N by ceasing both to believe *p* and to believe not-*p*, which also maximizes the payoff in no outcome, would be neither with reason nor against it. In any event, both suggestions are implausible.

However, there is no helpful sense in which, by satisfying N as one does *in this case*—that is, by *not* believing *p* and *believing* not-*p*—one takes 'means' to believing what reason requires *in this case*—that is, *believing p* and *not* believing not-*p*.[18]

Lastly, one might grant that satisfying N as one does *in this case* does not bring one closer to what reason requires *in this case*, but propose that having a *disposition* to satisfy N *over the long run* brings one closer to what reason requires *in the long run*. But, first, if one can satisfy N against reason in this case, then why cannot a disposition to satisfy N lead one to satisfy N against reason *serially*? One might reply that, although a disposition to satisfy N might lead one away from reason if left on its own, it will not lead one away from reason if accompanied, as presumably it will be, by a more or less reliable disposition not to believe what reason forbids. Yet to the extent that one already has a more or less reliable disposition not to believe what reason forbids, one will tend not to believe contradictory things in the first place, and so the disposition to satisfy N becomes superfluous.[19] Second, even if satisfying N over the long run did lead one closer to reason over the long run, it would still not explain SN. SN claims that one satisfies a requirement by making one's beliefs consistent in a particular case, not that one does so by making one's beliefs consistent over the long run.

Taking a new tack, one might suggest that some 'constitutive' or 'conceptual' claim underwrites the normativity of N. But it is not clear how. The claim that:

> For an attitude to be a belief just is (in part) for it to be correct just when it is true

may well underwrite Evidentialism.[20] But, as we have seen, Evidentialism does not explain N. The claim that:

[18] Of course, a necessary condition of (believing *p* and not believing not-*p*) is (either (believing *p* and not believing not-*p*) or (not believing *p* and believing not-*p*)). So one might say that in not believing *p* and believing not-*p* one takes a necessary means to not believing not-*p*. However, another necessary condition is (either (believing *p* and not believing not-*p*) or (both believing *p* and believing not-*p*)). So, by the same logic, in *continuing* to have contradictory beliefs—or, indeed, in doing anything at all—one takes necessary means to coming closer to what reason requires in the same way. This cannot explain SN, which claims that one satisfies a requirement in ceasing to believe *p* that one would not satisfy if one continued with contradictory beliefs. Thanks to Ralph Wedgwood for suggesting this line of objection.

[19] I pursue this line of argument at greater length in Kolodny (*ms*.a).

[20] See Shah (2006).

> For an attitude to be a belief just is (in part) for it to satisfy N

would not support, and may even be incompatible with, the normative claim that beliefs *ought* to satisfy to N. The claim that:

> For a subject to be a believer just is (in part) for certain of his attitudes to satisfy N *for the most part*.[21]

would explain at most why we ought to satisfy N *for the most part*, not why we ought to satisfy N *in any particular case*. Lastly, consider:

> For an attitude to be a belief just is (in part) for N to *apply* to it—so that to *know what* a belief is just is, in part, to *know that* N is a norm for belief,

and

> For a subject to be a (self-conscious, rational) believer just is (in part) for him to accept that N applies to certain of his attitudes—so that not to accept that N is a norm for belief is to cease to be a (self-conscious, rational) believer.[22]

These claims do not answer the question being raised from the deliberative point of view, 'Why should I *satisfy* N?'[23] At most, they answer the different question, 'Why should I *accept that* I should satisfy N?', forcing the deliberator to accept, awkwardly, *that* he should satisfy N, without any answer as to *why* he should. More generally, once we have distinguished N and R1, these constitutive claims seem less plausible. Perhaps the real constitutive claims in the vicinity involve R1, instead of N. Finally, since, as we have seen, we have no evidential reasons for satisfying N, these constitutive claims would have to offer us non-evidential considerations. If Evidentialism is true, then these considerations cannot be reasons for belief. This is a problem not only for N, but also for each of the requirements of formal coherence, since each governs, *inter alia*, belief.

Often when we cannot explain *in other terms* why we ought to satisfy a putative norm, the counsel of good sense is to acknowledge that we ought to satisfy the norm *for its own sake*. But it is not, as

[21] Compare Davidson (2004).

[22] Compare Korsgaard (1996).

[23] Note in particular that neither gives the answer that unless one satisfies N one lacks beliefs.

far as I can see, the counsel of good sense in this case. Simply put, it seems outlandish that the kind of psychic tidiness that N, or any other requirement of formal coherence, enjoins should be set alongside such final ends as pleasure, friendship, and knowledge.[24] And, again, such 'reasons' would not be evidential.

Notice we have been asking: What, if anything, can be said for satisfying N, within, or addressed to, the first-person standpoint of deliberation—the standpoint from which we decide what to believe or choose? We could ask a different question: How, if at all, can a person's satisfying N be positively appraised from the (typically) third-person standpoint of evaluation—the standpoint from which we approve or disapprove, praise or blame what someone believes or chooses?[25] Our failure to find an answer to the first question, it might be said, need not rule out an answer to the second. 'We can evaluate a person as beautiful, or some organ of hers as functioning properly, without implying that there are reasons, that might carry weight within the deliberative standpoint, for her to believe or choose anything. Likewise, we can evaluate someone as functioning properly, or manifesting a virtue, when she makes her beliefs coherent, without implying that there are reasons for her to believe as she does.' But, first, it is obscure why satisfying N should merit positive appraisal.[26] And, second, an answer to this evaluative question would not be an answer to our original, deliberative one.[27]

[24] Compare Wedgwood (2003).

[25] A related question is whether N represents a regularity to which we can appeal in giving 'rational explanations,' typically from the third-person point of view, of the subject's responses.

[26] I believe that we can explain why satisfying *other* rational requirements, such as Believed Reason, and the internalist requirements of epistemic and practical justification, merits positive appraisal. For one thing, conforming manifests dispositions that lead one to closer to reason over the long run, at least when joined with certain other dispositions. There are also less instrumental grounds. About Believed Reason, see Kolodny (*ms*.a); about practical justification, see Setiya (2007).

[27] 'If satisfying N merits positive appraisal,' it might be said, 'then this is an answer to the deliberative question. The reason why you should satisfy N is that it would be an episode of proper functioning, or display a virtue.' However, the fact that *A*-ing would display the virtue of kindness, modesty, courage, etc. is not typically itself reason (let alone conclusive reason) to *A*: a consideration that carries weight in deliberation whether to *A*, even deliberation of the most reflective sort. First, this will typically get the relevant value, and locus of value, wrong. What matters is not one's own kindness, for example, but instead another's relief from suffering. Moreover, with many virtues, being prepared to take them, on reflection, as reasons is incompatible with possessing them. See Moran (1993). Finally, whether we have reason to *A* typically depends on whether the situation *is* a certain way (for exam-

III

An Error Theory for N: *Explaining the Satisfaction Claim*. If we reject N, then we need some other explanation of SN, or at least of its appeal. Suppose that one believes *p* and believes not-*p*. Plausibly, both this fact and the general truth R1 are available to one. So, plausibly, one is in a position to know that either one believes *p* without sufficient reason, or one believes not-*p* without sufficient reason. In light of this, if it matters sufficiently whether *p* or whether not-*p*, reason plausibly requires one to believe that one lacks sufficient reason to have at least one of these beliefs, and/or to try to decide which belief, or beliefs, one lacks sufficient reason to have.[28] Suppose one responds to either of these 'second-order' requirements of reason. Then either one arrives at a conclusion about which belief, or beliefs, one lacks sufficient reason to have, or one does not. If one arrives at a conclusion that one lacks sufficient reason for certain beliefs, then one would be defying one's own judgement to refuse to revise those beliefs. If, on the other hand, one reaches no conclusion about which belief, or beliefs, to revise, then one would be defying one's own judgement, in much the same way, to refuse to suspend belief. A live doubt has been raised whether reason permits one to believe *p*, and one is presently deliberating whether it does. To believe that *p* before having concluded that reason permits one to believe that *p* is to defy one's own judgement. (The same, of course, goes for believing not-*p*.) It is irrational to defy one's own judge-

ple, whether our ministrations would relieve his suffering), whereas whether we display the virtue depends only on our *believing* it to be that way. None of this counts against the 'Reasons' thesis of Setiya (2007): 'The fact that *p* is reason for *A* to *phi* just in case *A* has a collection of psychological states, *C*, such that the disposition to be moved to *phi* by *C*-and-the-belief-that-*p* is a good disposition of practical thought, and *C* contains no false beliefs.' This does not entail that the fact that *A*-ing would display a good disposition of practical thought *is itself* a reason to *A*. Setiya argues persuasively that neither (as I once thought) the left-hand, 'deliberative', side of the biconditional is explanatorily prior, nor that (as Smith 1994 seems to suggest) the right-hand, 'evaluative', side is prior. Instead, I am now inclined to think, different questions privilege different sides. When we ask what to choose, for example, what matters are the reasons in favour of possible choices. The fact that someone with the relevant virtue, if she knew the relevant particulars, would *A* matters insofar as it indicates that, as she would discern, there are some reasons or other to *A*. When we ask whether we are to be praised or blamed for *A*-ing, by contrast, what matters is whether we displayed the relevant virtue. Whether there were reasons to *A* is neither here nor there.

[28] This may also count as a rational requirement, as Fabrizio Cariani points out to me.

ment in either of these ways, as is codified by:

> *Believed Reason* (BR): If one believes at *t* that reason requires one to have attitude *A*,[29] then one is rationally required to form or sustain, going forward from *t*, on the basis of this belief, *A*, and if one believes at *t* that reason does not permit one to have *A*, then one is rationally required to revise or refrain from forming, on the basis of this belief, going forward from *t*, *A*, and if one is deliberating at *t*, in response to a live doubt, whether reason permits one to have *A*, but has not yet concluded that it does,[30] then one is rationally required to revise or refrain from forming, going forward from *t*, *A*.

Our aim, recall, is to explain the requirement in SN: a requirement that one violates if one continues with incoherent beliefs, but satisfies if one makes one's beliefs coherent, even in a way that leaves one no closer to, or even further from, what reason requires. My suggestion is that the requirement in SN is either of the second-order requirements of reason, or the rational requirement BR. If one satisfies either of the second-order requirements and BR, then one's beliefs will be coherent. Yet one might satisfy these requirements in a way that leaves one no closer to what reason requires. This is because, in complying with the second-order requirements, one might fail to reach the correct conclusion about what reason does require.

'How is this progress?' one might well wonder. 'After all, the same considerations that show that we have no reason to satisfy N against reason show likewise that we have no reason to satisfy BR against reason: that is, when our belief about our reasons is false.' This is all true. However, the worry was that there was nothing that could be said, within or to the first-person standpoint of deliberation, for satisfying N even in the wrong way. And there is, in a way, something that can be said, within or to the first-person standpoint of deliberation, for satisfying BR in the wrong way. Take someone

[29] Of course, no one will readily express his or her belief in these terms. Recall that 'reason requires' is, even relative to philosophical usage, somewhat artificial and regimented. In the case of believing that *p*, the relevant judgement might be more commonly expressed as: 'There's compelling evidence that *p*,' or 'It's overwhelmingly likely that *p*.'

[30] This clause, or at least the phrase 'live doubt,' needs further elaboration. As Mike Martin and Mike Titelbaum point out to me, there are cases in which it does not seem irrational to continue believing something while considering whether there is sufficient evidence for it.

who is required by BR to believe *p*. Given that BR requires her to believe *p*, she must satisfy its antecedent, by judging that she ought to believe *p*. Since she judges that she ought to believe *p*, and since believing *p* is what BR requires, it will seem to her, of what BR requires, that she ought to do it. It is not as though she sees herself as having, or needing, some *special* reason to realize such-and-such a pattern among her beliefs: a reason of the kind for which we searched in vain in the last section. Instead, she just judges, perhaps falsely, that the *evidence* makes it (sufficiently) likely that *p*. Furthermore, we can advise, or do something that looks like advise, her to believe as BR requires, by drawing her attention to the content of her own belief that the evidence makes it likely that *p*. In sum, while reason does not require one to satisfy BR, we can explain why it will inevitably *seem* to one as though reason requires it. And this may be enough for the error theory for N that we are trying to construct.[31]

IV

Objections to the Error Theory for N.

1. *Akratic and Unreflective Cases.* According to SN, one satisfies a requirement if one makes one's beliefs coherent. However, one can make one's beliefs coherent in ways that do not satisfy the second-order requirements or BR (and do not lead one closer to reason). First, one can make one's beliefs coherent *akratically*: in defiance of one's own judgement about the reasons for those beliefs.[32] Second, one might make one's beliefs coherent *unreflectively*: without any conscious reflection on one's reason at all. (This might happen, for example, when it does *not* matter sufficiently whether *p* for one to believe anything about one's reason, or to try to decide which belief, or beliefs, to give up.)

Here is a partial response. Akratic and unreflective cases may involve the manifestation of an unconscious disposition. Where un-

[31] This is the 'Transparency Account' of Kolodny (2005). I need to say more to defend it. For careful and forceful objections, see Bridges (*ms*.) and Hussain (*ms*.). The fact that satisfying BR qualifies one for positive appraisal (see the penultimate note of §II) may accommodate some of these objections.

[32] I thank Alex Sarch and Nishi Shah, in particular, for pressing me on this.

conscious dispositions are at issue, there is no standpoint of deliberation, and so our normative question, 'Why conform in this way?', does not arise. However, manifesting an unconscious disposition may qualify one, or some sub-personal part of one, for positive appraisal. Consider an unconscious disposition not to believe *p*, when in C, where C is a condition in which reliably, but fallibly, one lacks sufficient reason to believe *p*. First, because this disposition is reliable, it leads one closer to reason over the long run. This explains why its manifestations are appraised positively. Second, its manifestations make one's beliefs coherent. Finally, because this disposition is fallible, its manifestations may lead one no closer to reason in particular cases. Such a disposition may be manifested in akratic and unreflective cases. This would explain why we are apt to think that even in akratic and unreflective cases, the subject does well, in at least one respect.

The difficulty is that there is no guarantee that such a disposition is manifested in every akratic or unreflective case. The only disposition that would be manifested in *every* akratic or unreflective case would be a disposition to make one's beliefs consistent in *any* way, it matters not which. But it is not clear why this disposition, or its manifestations, should be appraised positively. As I noted earlier, it would not lead us closer to reason over the long run.[33] Still we may believe that we do well, even in these akratic and unreflective cases. I wonder, though, whether we do not simply overgeneralize here.[34]

[33] I discuss these dispositions in Kolodny (*ms.*a).

[34] Pam Hieronymi, Seana Shiffrin and Sven Nyholm have suggested, in effect, that one might accept, in place of Believed Reason:

> *De Re Believed Reason*: If the contents of one's beliefs at *t* entail that reason requires one to have attitude *A*, then one is rationally required to form or sustain, going forward from *t*, *A*, and if the contents of one's beliefs at *t* entail that reason does not permit one to have *A*, then one is rationally required to revise or refrain from forming, going forward from *t*, *A*.

Suppose that *p* entails that reason does not permit one to believe not-*p*, and not-*p* entails that reason does not permit one to believe *p*. Then if one believes that *p* and believes that not-*p*, one is rationally required not to believe *p* and rationally required not to believe not-*p*. This, it might be said, explains why, in every akratic or unconscious case, one satisfies a requirement of rationality. While this alternative would be congenial to my broader approach, my main worry about it, in the present context, is this. If, similarly, *p* entails that reason requires one to believe *p*, and not-*p* entails that reason requires one to believe not-*p*, then continuing both to believe *p* and to believe not-*p* will satisfy as many rational requirements as dropping one or both. It is thus unclear how this account would explain SN.

2. *Incoherence is Distinctive.* While this account may identify *a* problem with incoherence, it might be objected, it does not identify the *distinctive* problem. According to this account, the problem with persisting in believing *p* and believing not-*p* is that one is in a position to know that one lacks sufficient reason for at least one of these beliefs. The problem is thus of the same kind as persisting in two *consistent* beliefs, when one is in a position to know that one lacks sufficient reason for at least one of them. Yet do we agree that, when Watson persists in believing that the butler did it and believing that the butler did not, Watson makes the same mistake as when he persists in believing that the butler had a hand in it and believing that the maid had a hand in it, even though Holmes has told him that at least one of these beliefs is untenable? Is not the former mistake more serious than, or at least different in kind from, the latter?

If we sense a residual difference here, I suspect that it is due to the difference in the epistemic credentials of the respective second-order beliefs: a basic and general truth about how best to pursue truth and avoid falsity in light of a simple logical principle, on the one hand, and the contingent, particular authority of Holmes, on the other. Bring these closer together, and the seeming difference, I expect, will recede.

3. SE *Presupposes a Requirement of Formal Coherence.* This might be alleged on the following grounds:

> *Internalism about Evidence*: Evidence consists in all or some special class of our (possibly false) beliefs and/or our (possibly nonveridical) perceptual states; or the (possibly false) contents of these beliefs and/or perceptual states.[35]

My reply is that while Internalism might make SE a requirement of rationality, it would not make it a requirement of formal coherence as such. On an internalist view, SE might be, for example:

> If not-*p* coheres better than *p* with one's other beliefs at *t*, then one is required not to believe, going forward from *t*, that *p*.

[35] I am indebted to Hannah Ginsborg and Michael Smith for pressing this objection.

Yet this is narrow scope, not wide.[36] The corresponding wide-scope formulation:

> If not-*p* coheres better than *p* with one's other beliefs at *t*, then one is required (either not to believe, going forward from *t*, that *p*, or to revise, going forward from *t*, one's other beliefs so that they cohere sufficiently better with *p* than with not-*p*)

would not represent a form of responsiveness to the evidence at all, or a recognizable kind of theoretical deliberation. It would say, in effect, 'Either believe only what the evidence supports, or change the evidence.'[37] Moreover, if evidence depends on perceptual states (or their contents), then the requirement cannot avoid being narrow scope, since one has no option of revising how things appeared to one at a given time.[38]

4. *Why Must* $F(p) > T(p)$*?* Perhaps there are cases in which $F(p) \leqslant T(p)$. In such cases, one might object, SE fails, and so epistemic reason cannot explain VN.

First, if there were such cases, CS would not hold in them. The plausibility of CS, therefore, is reason to doubt that there are such cases. Second, if there are such cases, VN may not hold in them. If so, then they leave nothing for N to explain.

Third, suppose, that $F(p) = T(p)$. Then, just when the evidence is evenly balanced, epistemic reason permits us both to believe *p* and to believe not-*p*. However, even if we assume N, we are still permitted either to believe *p* and not believe not-*p*, or not to believe *p* and to believe not-*p*, or not to believe *p* and not to believe not-*p*. This permissiveness is at odds with the phenomenology of epistemic deliberation. From the first-person standpoint, we do not, in fact, experience this kind of arbitrary liberty either to believe *p* alone, or to believe not-*p* alone, or to believe neither. This suggests:

[36] In addition, the internalist's SE presumably governs kinds of coherence that are not strictly formal.

[37] Henny Youngman: 'When I read about the evils of drinking, I gave up reading.'

[38] The normativity of these rational requirements would not be problematic in the same way as requirements of formal coherence, since they would also be requirements of reason.

> *Epistemic Strictness* (ES): Reason either forbids a belief, or it requires it.[39]

And if ES and $F(p)=T(p)$ hold, then when the evidence is evenly balanced, either reason forbids both beliefs, or reason requires both. If reason forbids both beliefs, then again nothing is left for N to explain.

Suppose, finally, that either reason requires both, or $F(p)<T(p)$. Under either supposition, N sometimes *requires* us to violate epistemic reason. True, if N always 'trumped' epistemic reason in these cases, then VN would be explained. But the very idea that there is such conflict here—that one cannot avoid either violating what reason requires or what rationality requires—is questionable. Whatever our view of the content of requirements of reason and of rationality, we might have expected their contents to be compatible, in the following sense:

> *Ideal Compatibility*: If one is required at t by reason to X and required at t by rationality not to X, then there should be some earlier time t' and response Y such that if one had given at t' response Y, then one would not be both required at t by reason to X and required at t by rationality not to X.

Granted, if one comes to the false belief that reason prohibits what it in fact requires, then, because of one's *past mistake*, it may be irrational of one to do what reason requires. (BR implies as much.) What is harder to accept, and what Ideal Compatibility rules out, is that this was fated to be so: that there was nothing one could have done to avoid being either irrational or unreasonable now. This is the 'Problem of Conflict'.

V

Can the Error Theory Be Extended to Other Requirements of Formal Coherence? To extend this error theory to other requirements of formal coherence, we need to show that analogues of the com-

[39] Compare White (2005). ES says that one is always required to make up one's mind in a particular way, *if* one makes it up. But one may be merely permitted to make up one's mind.

ment on reason patterns, R1, can explain analogues of the violation claim, VN. Let me sketch, in a highly compressed way, some possible explanations, and the problems they face.

> *Single-Premiss Closure* (C): When q is a logical consequence of p, one is rationally required (if at t one believes p, then at t to believe q).

would explain:

> *Violation Claim about Single-Premiss Closure* (VC): When q is a logical consequence of p, if at t one believes p, but does not believe q, then one violates some norm.

Suppose, however, that we accept ES and:

> *Evidence Transmission* (ET): When q is a logical consequence of p, the evidence that q is at least as strong as the evidence that p.

Suppose that one has sufficient reason to believe p. Then there is sufficient evidence, in an absolute sense, to decide the question whether p, and sufficiently stronger evidence that p than that not-p to permit the belief that p. Suppose that the evidential demands—the thresholds of sufficient and sufficiently stronger evidence—for the question whether p are no lower than for the question whether q.[40] Then, by ET, there is sufficient evidence, in an absolute sense, to decide the question whether q, and sufficiently stronger evidence that q than that not-q to permit the belief that q. Presumably, there is sufficient reason to believe q, and, by ES, conclusive reason to believe q.

> *Second Comment about Reason Patterns* (R2): When q is a logical consequence of p, either one lacks sufficient reason to believe p, or one has conclusive reason to believe q.[41]

One might object that this is true only when qualified in several

[40] In terms of the decision-theoretic analogy, that $F(p)/T(p) \geqslant F(q)/T(q)$.

[41] In terms of the decision-theoretic analogy, ET is: If p entails q, then $E(q) \geqslant E(p)$. If $F(p)/T(p) \geqslant F(q)/T(q)$, then this implies: If p entails q, then (ignoring zero denominators) $E(p)/E(\text{not-}p) \geqslant F(p)/T(p)$ entails $E(q)/E(\text{not-}q) \geqslant F(q)/T(q)$. And this is essentially R2.

ways. First, perhaps the believer must be in a position to know that *q* is a logical consequence of *p*; that consequence must not be too remote.[42] Second, perhaps the believer must have conclusive reason to make up his mind whether *q*; *q* must not be irrelevant or trivial.[43] Finally, in some cases, the evidential demands on the question whether *q* may be higher than the evidential demands on the question whether *p*; it might matter more whether *q* than whether *p*. 'So qualified,' it might be said, 'R2 does not explain VC. Therefore, we need C.' This response again invites the Problems of Normativity and Conflict. (If the evidential demands whether *q* are higher than whether *p*, for example, then epistemic reason may require one to believe *p*, but forbid one from believing *q*.) In any event, I suspect that those who qualify R2 in these ways will also qualify VC and C in similar ways. (Do we wish to say, for example, that, while one is not required by *reason* to deduce Zorn's Lemma from the Axiom of Choice, one is *irrational* for failing to?) The qualified R2 might well explain the qualified VC.

The more troubling feature of this error theory is its reliance on ES. Without ES, R2 does not follow. One might have merely sufficient, but not conclusive, reason to believe *p*, and likewise merely sufficient reason to believe *q*. Thus, one might believe *p*, but fail to believe *q*, without violating any requirement of reason. To my mind, ES seems a basic feature of theoretical deliberation. Still, others might deny it, or worry that it is too uncertain a basis for something as fundamental as single-premiss closure.

The analogous problem is far more serious for:

> *Means–End*: One is rationally required (either not to intend at *t* to *E*, or not to believe at *t* that one will *E* only if one intends at *t* to *M*, or to intend at *t* to *M*).[44]

One might try to explain the following:

> *Violation Claim about Means–End Incoherence* (VM): If one intends at *t* to *E*, believes at *t* that one will *E* only if one intends

[42] See Broome (2004).

[43] See Harman (1986) and Broome (2005).

[44] For explanation why *intending* to *M*, rather than *M*-ing, must be believed to be a necessary means, see Broome (2002), Kamm (2000), and Searle (2001, p. 266).

> at *t* to *M* but does not intend at *t* to *M*, then one violates some requirement,

by appeal to:

> *Practical Transmission* (PT): If one has conclusive reason to believe that one will *E* only if one *F*s, then one has reason to *F* that is at least as strong as one's reason to *E*,[45]

substituting 'intend at *t* to *M*' for '*F*.' Suppose, however, that while one has conclusive reason to believe that one will *E* only if one intends to *M*, one has merely sufficient reason to intend to *E*. It is then consistent with PT that one has merely sufficient reason to intend to *M*. In such a case, one may intend to *E*, believe that one will *E* only if one intends to *M*, and not intend to *M* without violating any requirement of reason. This could not happen, if there were a practical analogue to ES. But there is no such analogue.[46]

Taking a different tack, suppose, first, that one has sufficient reason to believe that one will *E* only if one intends to *M*, but, in fact, one does not intend to *M*. Ordinarily,

> *Self-Knowledge* (SK): If one does not intend at *t* to *M*, then one has conclusive reason to believe at *t* that one does not intend at *t* to *M*

holds, so that intending to *E* does not raise the epistemic probability that one *E*s. From:

> *Effectiveness*: One has sufficient reason to intend to *E* only if intending to *E* raises the epistemic probability[47] that one *E*s,

[45] This is in the spirit of the 'facilitative principle' of Raz (2005). One might resist the idea that the reason for the agent to *F* is relative to the *reason for him to believe* the means–end claim. For if we know that his evidence is misleading (and if *F*-ing is otherwise pointless), will we not advise him *not* to *F*? Yes, but we will *also* advise him not to believe the means-end claim. Drawing on the relativist semantics of the kind proposed by MacFarlane (2005), one might conjecture that the truth of a proposition about a person's reason to act or believe is relative to the evidence available to the person assessing the proposition. Relative to the agent's context of assessment, there is reason for him to believe the means–end claim and to *F*, but relative to our context of assessment, knowing what we know, there is not. In either context of assessment, however, PT holds, as stated. MacFarlane and I may explore this conjecture in future work.

[46] This is an instance of what Bratman (1987) calls 'the importance of Buridan'.

[47] Some might resist making one's reason epistemically relative. See note 45 attached to PT.

it would then follow that:

> *Third Comment about Reason Patterns* (R3): If one does not intend at *t* to *M*, then either one lacks sufficient reason to believe that one will *E* only if one intends at *t* to *M*, or one lacks sufficient reason to intend to *E*.[48]

This, however, would not supply a general explanation of akratic cases, analogous to those described in §III, in which the agent seems to satisfy some requirement by intending *M* even if he believes that he lacks sufficient reason to *E*. Perhaps we can do without a general explanation of akratic cases in the theoretical sphere. But given the greater prevalence of akratic cases in the practical sphere, one might hope that more could be said.

This may lead us to a 'cognitivist' theory, which identifies not an intention, but instead an associated belief, for which one lacks sufficient reason.[49] Take someone who does not intend to *M*. Then, at least when SK holds, she has conclusive reason to believe that she does not intend to *M*. Suppose that she also has sufficient reason to believe that she will not *E* if she does not intend to *M*. Then, in most cases, she has conclusive reason to believe that she will not *E*. But if she intends to *E*, then

> *Non-Defeatism*: If one intends at *t* to *E*, then one does not believe at *t* that one will not *E*[50]

entails that she lacks this belief. This supports:

> *Fourth Comment about Reason Patterns* (R4): If one does not intend at *t* to *M*, but one does intend at *t* to *E*, then either one lacks sufficient reason to believe at *t* that one will *E* only if one intends at *t* to *M*, or one has conclusive reason to believe at *t* that one will not *E*, but refuses to believe it.

[48] This assumes the analogue of Evidentialism in the case of intention: that all reasons for intention derive from the reasons for the action intended. As it happens, I believe that there are exceptions. But, when made explicit, these seem to tell against VM.

[49] Compare Broome (forthcoming); Harman (1986; 1999); Setiya (forthcoming); Velleman (1989; 2000; *ms.*); and Wallace (2001). For doubts, particularly about SK, see Bratman (forthcoming a and b).

[50] See Bratman (1987).

This, in turn, would suffice to explain VM.

The most troubling feature of R3 and R4 is that they rely on SK. SK surely fails in some cases. One is not always in a position to know what one does not intend. However, it is not obvious to me that VM will hold in such cases. To settle this, we would need to examine, in greater detail than we can here, specific examples.

Even if we can explain VC and VM, I doubt that we can explain other violation claims. I do not want to argue too strenuously that no comment corresponds to:

> *Violation Intuition about Logicality* (VL): If *not-*p_n is a logical consequence of p_1 and p_2, …, p_{n-1}, then if at t one believes p_1, believes p_2, …, and believes p_n, then one violates some requirement; and if p_n is a logical consequence of p_1, p_2, …, p_{n-1}, and at t one believes p_1, believes p_2, …, and believes p_{n-1}, but does *not* believe p_n, then one violates some requirement.

If there were such a comment, this would be a congenial result.[51] But I doubt that such a comment can be vindicated, for much-discussed reasons. In the well-known 'preface' and 'lottery' cases, there is—to all appearances—sufficient and sufficiently stronger evidence for each of a series of claims than for their negations, but also sufficient and sufficiently stronger evidence for the negation of their conjunction than for their conjunction. Suppose the evidence can assume such a pattern and something like the decision-theoretic analogy is correct. Then to deny that the believer has sufficient reason for inconsistent beliefs when the evidence assumes such a pattern is, in effect, to insist, implausibly, that no chance of truth, no matter how great, can justify any risk of falsity, no matter how small. This is, in turn, to insist that we lack sufficient reason to believe any epistemically contingent claim.[52]

Similar considerations lead me to believe that no comment corresponds to:

[51] See, for example, Pollock (1986), which, in effect, defends such a comment.

[52] Makinson (1965) and Kyburg (1970) are the classics. There is also the famous suggestion of Harman (1986) that the proper response to some philosophical paradoxes may be to retain the paradoxical beliefs until we know which to give up. Christensen (2004) makes a resourceful and compelling case for the inescapability and importance of preface cases.

> *Violation Intuition about Intention Inconsistency* (VI): If one intends at t to E_1, intends at t to E_2, and believes at t that if one E_1s, then one does not E_2, then one violates some norm.

Even if one knows that one cannot succeed in both E_1-ing and E_2-ing, one may also know that intending both gives one a better chance of succeeding in either than, and is no more costly than, intending only one.[53] In such a case, one might have conclusive reason to intend to E_1, to intend to E_2, and to believe that one cannot succeed in both.

We might appeal to requirements of formal coherence to shore up the violation claims. But this would once again invite the Problems of Normativity and Conflict. Alternatively, the guiding idea of our approach thus far—that whatever truth there is in violation claims is explained by facts about the pattern of reasons—might embolden us to question the violation claims themselves, as being overgeneralizations of a kind.

Let me say something about general logicality, leaving intention consistency for another time.[54] How does logic govern belief? VL represents one answer: that logic somehow governs belief directly, such that if our beliefs are not consistent and closed, we violate some norm. Our discussion of R1 and R2 represents a different answer: that logic governs belief indirectly, by structuring epistemic reason, which in turn directly governs belief. On this view, logic, so to speak, informs epistemic reason of possible patterns of truth and falsity.[55] Epistemic reason takes these patterns into account in determining how best to pursue the aims of acquiring truth and avoiding falsity in light of the evidence. For example, the simple facts that if not-p is true, then p is false, and that if q is a logical consequence of p, then if p is true, q is true, underlie the evidential principles SE and ET, which in turn explain R1 and R2.[56] The fact that epistemic reason takes into account the implications of logical relations for patterns of truth and falsity, however, does not imply that epistemic

[53] As McCann (1991) suggests, Bratman's (1987) 'video game' example is one such case.

[54] See Kolodny (*ms.*b).

[55] Of course, there are other sources of information, besides logic, about possible patterns of truth and falsity. If logic governs belief in a special way (and perhaps, as Harman 1986, claims, it does not) it is because it is somehow specially available to us, and so its contribution to epistemic reason is specially insensitive to our particular evidential situation.

reason always requires a pattern of belief that is itself logical. There remains the possibility that we best pursue the aims of acquiring truth and avoiding falsity, on the basis of information that logic gives us about the possible patterns of truth and falsity, by adopting a pattern of belief that it not itself logical. If the preface and lottery cases are telling, then this possibility is actual. The question, then, is whether, as VL implies, logic does double duty, not only structuring what epistemic reason requires, but also placing an independent constraint on belief that sometimes countermands what epistemic reason requires. This begins to seem like a fetish for a certain mental pattern.

It is worth discussing a different response to doubts about VL:

(i) Some kind of general formal coherence must govern our basic cognitive attitudes: that is, some relevant violation intuitions must hold for them.

(ii) VL does not hold for full beliefs.

(iii) However, the following:

> *Violation Intuition about Probabilistic Coherence* (VP): If one has degrees of belief that are not probabilistic—that do not satisfy the probability axioms—then one violates some norm,

does hold for degrees of belief.

(iv) Therefore, our basic cognitive attitudes are degrees of belief, governed by probabilistic coherence (perhaps with full beliefs being degrees of belief higher than some threshold less than one).[57]

Let me first say a bit about (iii), before addressing (i).

[56] My claim is similar in structure to, but somewhat different in substance from, the view of Hawthorne and Bovens (1999) and Christensen (2004) that logic informs norms of probabilistic coherence, which in turn directly constrain degrees of belief. First, what are directly constrained are degrees of evidence, not degrees of belief. (As we note below, it does not follow from the fact that evidence is probabilistic that it supports a probabilistic pattern of belief.) Second, at the moment, we are concerned not with degrees of belief, but instead with full beliefs. Finally, SE and ET might hold even if evidence is not fully probabilistic.

[57] Christensen (2004), and perhaps also Hawthorne and Bovens (1999), suggest something like this line of argument. Holton (forthcoming) considers a similar response to doubts about VI.

Epistemic reason may be able to explain VP. Following Joyce (1998), we may accept:

> *Evidentialism for Degrees*: Epistemic reason aims for degrees of belief that minimize 'inaccuracy,' where inaccuracy is the sum, for every member, p, of a set of propositions, of $T(D(p))$ if p is true or $F(D(p))$ if p is false, where $D(p)$ is the degree of belief in p, $T(D(p))$ decreases as $D(p)$ approaches 1, and $F(D(p))$ decreases as $D(p)$ approaches 0.

Joyce proves that if the measure of inaccuracy meets certain constraints then, for any set of degrees of belief that is not probabilistic, there is some probabilistic set that is less inaccurate, by that measure, no matter what the actual state of the world. If the measure of inaccuracy meets these constraints, this argument would plausibly support:

> *Fifth Comment about Reason Patterns*: The set of degrees of belief that epistemic reason requires is probabilistic.

However, it would not explain the normativity of the wide-scope requirement of formal coherence:

> *Probabilistic Coherence* (P): One is rationally required to have at t any one of the probabilistic sets of degrees of belief.

Not all probabilistic sets of degrees of belief are guaranteed to be more accurate no matter what the state of the world.

Whether the measure of inaccuracy that informs epistemic reason satisfies Joyce's constraints, however, is an open question. It is not obvious why epistemic reason should not care more about accuracy at the extremes (so that, for example, $T(0.9) - T(0.99) > T(0.4) - T(0.49)$), or about minimizing the degree of belief in falsehoods, so that $F(D(p)) > T(D(p))$—the partial-belief analogue to $F(p) > T(p)$. This would imply measures of inaccuracy that violate Joyce's constraints.[58] The upshot is that we might be left with something like a preface case, in which aiming to be faithful to reality, on a not implausible conception of what that amounts to, leads to degrees of belief that are not probabilistically coherent.

This being said, one might ask what argues for (i): that our cognitive attitudes must be directly governed by some general, suitably 'formal' coherence. The broader lesson of the preface, one might have thought, is not simply that VL is untenable, but moreover that it is a mistake to insist that our cognitive attitudes must fit some pattern of formal coherence—or indeed any pattern other than the pattern that best conduces to fidelity to what, and only what, is so. If we take this lesson, it is unclear why, finding logical coherence untenable, we should seek refuge in probabilistic coherence. So, on the one hand, it is unclear why, if epistemic reason does support VP, this is itself a reason to replace a framework of full beliefs with a framework of degrees. And, on the other hand, it is unclear why, if epistemic reason does not support VP, this is reason for concern. If what best serves our aim of faithfully representing what is so, and only what is so, is not a probabilistic pattern, then what is left to be said for such a pattern? Why should it, any more than logicality, reflect something other than a fetish for a certain psychic order?[59]

[58] Gibbard (forthcoming) suggests the first kind of measure, which would violate Joyce's constraints of Weak Convexity and Symmetry. The second kind would violate Joyce's Normality. Maher (2002) motivates, on other grounds, the simple absolute value measure: $T(D(p))=|1-D(p)|$ and $F(D(p))=|D(p)|$, which also violates Joyce's Weak Convexity and Symmetry.

Returning to our decision-theoretic analogy, we might propose that epistemic reason requires us to select $D(p)$ so as to minimize expected inaccuracy. Assuming these functions are differentiable, and ignoring zero denominators, a necessary and sufficient condition for a minimum is:

$$E(p)/E(\text{not-}p) = -F'(D(p))/T'(D(p)).$$

If the measures of inaccuracy satisfy:

$$\textit{Minimum}\text{: } D(p)/[1-D(p)] = -F'(D(p))/T'(D(p)),$$

and if degrees of evidence are probabilistic, then degrees of belief will equal degrees of evidence, and so be probabilistic themselves. But none of the measures of inaccuracy discussed above satisfy Minimum, and, of course, this argument must assume, whereas Joyce's need not, that evidence is probabilistic.

[59] Abandoning Evidentialism, one might try to support VP or P on 'pragmatic' grounds. On a naïve interpretation, the Dutch book argument shows that (as Richard Bradley points out to me) we have at least pro tanto reason to satisfy the wide-scope P. *Any* probabilistic set avoids a Dutch book, so there is at least that to be said for satisfying P in any way. And so, perhaps, if, for every non-probabilistic set, there is some probabilistic set that is at least as good in other respects, then for every non-probabilistic set, there is some probabilistic set that one has conclusive reason to replace it with. This would be, in effect, a comment on reason patterns supporting VP. But the Dutch book argument would not show that we have *conclusive* reason to satisfy the wide-scope P. Some probabilistic sets are vastly worse than

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Conclusion: The Inescapability of Rationality. It is hard to find a place for requirements of formal coherence as such. They are not animated by our concern to believe the true and choose the worthwhile. They are not explained by any plausible constitutive claim. And they cannot plausibly be viewed as ends in themselves. Moreover, some requirements of formal coherence as such would consign even the most informed and conscientious person to either violating reason, or violating rationality.

I have tried to say how we might do without requirements of formal coherence as such. We would have to deny certain violation claims, such as VP, VI, and perhaps VP, as overgeneralizations. We would have to deny, likewise, some akratic and unreflective cases, at least where N and C are concerned. And we would have to maintain that $F(p) > T(p)$, ES and SK hold, or hold often enough. Some may find this too much to deny, or to maintain. The demands of formal coherence, they may believe, admit of fewer exceptions, or rest on a surer foundation. If they are right, then we are committed, by our own judgement, to principles that we cannot, on reflection, make sense of. This would itself be an interesting result, although also an unsettling one.

Suppose, however, that we can reconcile ourselves to there being no requirements of formal coherence as such. In closing, I want to ask where this leaves the tendency, which I discussed earlier, to see requirements of formal coherence as such as the core or basis of normativity. This tendency has several sources. To many, problems about the metaphysics, epistemology, and motivational force of norms seem somehow more tractable for requirements of formal co-

some non-probabilistic sets, even taking into account their comparative insulation from Dutch books. The classic sources are Ramsey (1926) and de Finetti (1937). See also Hájek (2005) for a recent survey and reconstruction.

Representation Theorem arguments, and the Dutch book argument less naïvely interpreted, show that probabilistic incoherence entails formal incoherence among preferences. This shifts the burden of explanation onto the relevant requirements of formal coherence on preferences. From there, the dialectic follows a familiar course. There may be comments on reason patterns that support violation claims about the relevant kinds of formal incoherence in preference. But these comments will not support the corresponding wide-scope requirements of formal coherence as such, since many ways of satisfying these requirements lead one no closer to reason. The classic here is Savage (1954). For an accessible, but thorough, presentation, see Mas-Colell et al. (1995). Skyrms (1987) urges this less literal-minded interpretation of the Dutch book argument.

herence[60] than for reasons. I suspect, however, that much of its impetus, though it is sometimes expressed in 'metaethical' or 'second-order' terms, is really 'substantive' or 'first order'. Requirements of formal coherence are all there is to normativity, or its only sure foundation—the thought runs—because they are the only normative premisses that cannot be denied, or escaped. It is only too easy to shrug off assertions that this is an intrinsic good, or that that is the correct prior probability. But no one can fail to feel the weight of a charge of irrationality: that one believes contradictory things, or refuses to take the means to one's own ends. What gives the idea its appeal, in other words, is the sense that the question 'Why should I?' can be settled only by the answer: 'Otherwise, you will be incoherent.'

But why, exactly, should charges of formal irrationality be 'undeniable' or 'inescapable' in this way? If other norms can be denied, why not requirements of formal coherence? Some may reply that they are simply obvious, while others may appeal to the idea, discussed in §II, that they partly constitute what, or whom, they govern.

The discussion of §III offers a different explanation. To the extent that someone who violates a putative requirement of formal coherence is being irrational, as opposed to simply failing respond to the reasons that apply to her, it is because she violates *BR*. She refuses to revise an attitude that she herself judges that she should revise. No wonder, then, that advisee cannot outrun advisor. For so long as the charge of irrationality applies, they are one and the same.[61]

This explanation of what makes charges of formal irrationality inescapable, however, suggests that requirements of formal coherence cannot play the hoped-for role: they can offer no answers, certain or otherwise, to the deliberator's question, 'Why should I?'. This is because charges of irrationality only inherit their seeming normative force from the normative force that a deliberator attaches to the content of a judgement about reasons: about the evidence for a belief, or the value of a possible choice. Granted, nothing may settle her question, 'Why should I?' But if anything does, it must be

[60] Or for requirements of rationality more generally. The point is made with characteristic force and clarity by Smith (2004b, pp. 181–4).

[61] I am greatly indebted to Jollimore (2005). Here, I just push a suggestion of his to its logical conclusion.

sought in *what* she judges, rather than in the agreement of her judging with the other activities of her mind.[62]

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[62] For private comments on this paper or related parts of 'Why Be Disposed to be Coherent?', I am grateful to Fabrizio Cariani, Hannah Ginsborg, Derek Parfit, Christian Piller, Joseph Raz, Sam Scheffler, Kieran Setiya, Seana Shiffrin, Michael Smith, and Jay Wallace. I am also greatly indebted to audiences of colloquia at Amherst; Valencia, where Josep Corbi gave prepared comments; UC Irvine; USC; Pittsburgh; the Aristotelian Society; and the Cambridge Moral Sciences Club; and to participants at the Engaging Raz Conference at the Institute of Philosophy, University of London; the Workshop on the Normativity of Reason at Fribourg; the 2006 OSU/Maribor/Rijeka Conference in Dubrovnik; the Hester Conference on Agency and Action at Wake Forest, where John Broome gave prepared comments; the Workshop on Value Theory and Epistemology at Stirling, where Ralph Wedgwood gave prepared comments; and my fall 2006 graduate seminar at Berkeley.

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