GROUNDWORK FOR STRUCTURAL EPISTEMIC RATIONALITY

Abstract: Value theorists routinely distinguish structural rationality—a matter of attitudinal coherence—from substantive rationality—a matter of reasons-responsiveness. Epistemologists do not likewise distinguish structural epistemic rationality (SER) from justification, but they should. I first argue that SER demands self-coherence, not classical consistency, and show that this means its epistemic work is not superfluous to justification’s. I then provide a vindication (in BonJour’s (1985) sense) of SER by showing that it promotes a fundamental cognitive goal. In doing so, I argue that fundamental cognitive goals ought to be understood not in terms of truth, but of a broader notion of accuracy.

1 Introduction

It’s rational to believe you ought to shoot me in the head… if, that is, you believe I am a zombie, and one ought to shoot zombies in the head.¹

At least, it is if by ‘rational’ we mean that your attitudes cohere. In another sense, that belief isn’t rational for you since you lack good reason to hold it (I hope!). Value theorists routinely capture this difference as a distinction between meeting/failing to meet structural and substantive requirements of rationality, respectively. Given the many parallels of value theory and epistemology, one might expect epistemologists to make a corresponding distinction between structural epistemic rationality (SER) and justification. However, they largely have, as Kurt Sylvan (ms.) puts it, a “history of indifference,” to distinctions among evaluations of epistemic rationality.² This indifference most often takes the form of assuming that justification is the be all and end all of epistemic rationality. Even debates over the possibility of rational epistemic akrasia (where structural concerns are most explicit) are best understood as concerning whether structural requirements on justification are superfluous to evidential requirements.³

¹ Zombie à la Romero, not Chalmers.
² Sylvan cites Cohen (1984), Dogramaci (2015), Fumerton (1995), Huemer (2011), Smithies (2012), and Wedgwood (2012) as examples of epistemologists “treating rationality and justification as the same thing” (ms., p. 1). Rare counterexamples include (Easwaran & Fitelson, 2015), (Fogal, Forthcoming), and (Worsnip, 2018).
³ Cf. (Lasonen-Aarnio, 2014), (Lasonen-Aarnio, 2015), and (Littlejohn, 2018).
Let us say that when epistemologists are indifferent in any of these ways, they implicitly treat SER as epistemologically insignificant—somehow unworthy of independent theoretical investigation. I argue that, to the contrary, SER is epistemologically significant. First, I clarify the nature of the evaluation. Most importantly, I argue that structural epistemic rationality is properly understood as a matter of meeting one’s own standards, not those of classical logic. Thus, it is not superfluous to justification. Second, I vindicate\(^4\) SER, showing that it promotes a fundamental cognitive goal. Key here, is that our current understanding of the fundamental cognitive goals needs amending from a focus on truth to a broader notion of accuracy. The vindication given reinforces SER as a distinct, non-superfluous epistemic evaluation, and shows that it yields the sort of epistemic value that makes it an epistemologically significant one.

2 SER as Meeting One’s Own Standards

2.1 Initial statement

In the spirit of groundwork, my goal is not to give a theory of SER, but clarify the core concept and elucidate its epistemic value. To that end, I will remain neutral on some important issues, especially those of normativity. I take no stance on whether SER is fundamentally a matter of rational requirements, its relationship to reasons, whether it is strongly normative, or its normative relationship to justification. I therefore prefer the terms of conditions and evaluations.

For the sake of space, however, some basic features of SER must be assumed without argument. Let us stipulate that SER is fundamentally a synchronic, “mere” coherence\(^5\) evaluation of sets of (doxastic\(^6\)) attitudes.\(^7\) We can therefore give the following initial statement of SER.

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\(^4\) In Laurence BonJour’s (1985) sense of ‘vindication’. About which, more below.

\(^5\) As opposed to more sophisticated relations such as explanatory coherence or graded coherence.

\(^6\) For the sake of simplicity, I focus on the “outright” attitudes of belief, disbelief, and withholding.

\(^7\) Evaluations of individual attitudes, as in the zombie case above, are derivative, indicating that the attitude in question is a member of a coherent set.
SERi

It is rational to hold the set of doxastic attitudes D, iff D is coherent.

A final note on SERi. It is standard to distinguish a specific enkratic condition requiring coherence among one’s evaluative and first-order attitudes. I have not done so given that I will have little to say concerning enkrasia per se. I take the special concerns that it introduces to be a matter of theory proper.

2.2 Superfluousness

Epistemologists are not insensitive to this epistemic dimension captured by SERi. They would not say that the zombie beliefs above are rational, full stop, but it would not be surprising to hear that they are “rational by your own lights” because they “hang together” in the right sort of way or “make sense from your perspective.” Nevertheless, these structural turns of phrase are not taken to indicate a distinct rational evaluation. Why not?

Perhaps the primary reason is what, following Alex Worsnip (2018), we can call Superfluousness. This is the view that, “it is a feature of the correct theory of evidential support that one’s evidence can never support attitudes that are jointly incoherent” (p. 4).8 This would seem to indicate that any epistemic value provided by SERi is not value added. Plausibly, there are evidential support conditions on justification,9 so a separate structural evaluation would merely reproduce epistemic work already performed by justification, which does a great deal more work besides.

Worsnip argues that Superfluousness is false because in certain, rare circumstances it is possible for one’s evidence to support sets of attitudes that are epistemically akratic.10 But, I think that far more mundane cases

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8 Worsnip (2018, p. 4, n. 5) cites (Kolodny, 2005), (Lord, 2014), and possibly (Huemer, 2011), although the view is common as an implicit assumption.
9 And even theories of justification that lack evidential support requirements will generally entail other metaphysical constraints that will do the same job. Classical coherentist theories, as in (Davidson, 1986), are a special case, but see §3 for issues relevant to distinguishing SER from these.
10 See (Neta, 2018) for a response. I take no stance on the success of Worsnip’s arguments here.
reveal a problem with Superfluousness, and can also serve as a jumping off point for better understanding SER.

**CONSISTENT CONNIE & INCONSISTENT INNES**

Connie and Innes have normal levels of intelligence and education, but through carelessness come to hold the following.

Connie:
1. B(No dogs are mammals)
2. B(Daisy is a dog)
3. B(Daisy is not a mammal)

Innes:
4. B(All dogs are mammals)
5. B(Daisy is a dog)
6. B(Daisy is not a mammal)

Given the background information, it is clear that neither’s set of beliefs is fully justified. Both include falsehoods as well, and, in fact, Connie’s includes two to Innes’ one. Yet, Connie’s beliefs “hang together” in a way that Innes’ don’t; they “make sense from her perspective,” such that she is “rational by her own lights.” In other words, Connie’s, but not Innes’, beliefs provide a coherent picture of the world. On SERi, then, Connie rationally holds her set and Innes doesn’t.

The Connie-Innes case shows that SER doesn’t merely partially duplicate the epistemic work of justification. Still, the defender of Superfluousness, it simply illustrates that justification does more epistemic work than SER, and SER is therefore unnecessary. But there is a problem with tying evaluative superfluousness to evaluative strength. Note that we could construct a similar set of cases to show that justification is superfluous to warrant.11 There is a relevant sense in which Connie is clearly doing better than Innes, and at least part of the value-added of SER it is sensitive this dimension of epistemic value in cases where justification is not.

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11 Internalist defenders of Superfluousness might deny the relevance of this difference given that Plantinganian warrant is an externalist evaluation (Plantinga, 1993). Note, however, that the point stands for warrant in the sense of (Wright, 2004).
2.3  Own-Standards SER

One might object that this sensitivity difference is too minor to matter, given that justification isn’t insensitive to coherence. This subsection argues that, appropriately understood, SER captures an aspect of structure to which justification is entirely blind. To see this, consider a Connie-Innes parallel.

**Dialetheic Diana & Unsound Unwin**

Diana and Unwin have been reading work by Graham Priest. Both come to endorse Priest’s paraconsistent logic, $LP$, rejecting the law of noncontradiction (LNC) and accepting the existence of dialetheia (i.e. true contradictions), including, “This sentence is false” (L). They therefore come to hold the following.

Diana:

(7) $B(L \text{ is true})$

(8) $B(L \text{ is not true})$

Unwin:

(9) $B(L \text{ is true})$

(10) $B(L \text{ is false})$

At first glance, Diana and Unwin’s case may not appear to parallel Connie and Unwin’s, given that neither’s sets of beliefs are coherent. Shouldn’t this mean that neither is structurally rational in holding their set?

I don’t think so. Consider that on $LP$, a proposition that is true may also be $not \text{ true}$, but not also $false$. In light of this, we can see that Diana’s beliefs “hang together” in a way that Unwin’s don’t; they “make sense from her perspective,” such that she, but not Unwin, is “rational by her own lights.” These are the same structural turns of phrase we used to describe the difference between Connie and Innes, and the difference in structural evaluation ought to be the same. Diana and Unwin’s case shows that to fully capture the relevant notion of structure, SER must concern not classical coherence, but what we can call (following Priest$^{13}$) *self*-coherence. In a

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$^{12}$ See (Priest, The Logic of Paradox, 1979).

$^{13}$ (Priest, 2006, p. 72).
slogan, SER is a matter of meeting one’s own standards. In a definition, it is as follows.

**SER**

It is rational for S to hold the set of doxastic attitudes D, iff D is self-coherent for S.

In addition to clarifying the notion of structure relevant to SER, the Diana-Unwin case reinforces SER’s non-superfluousness. In contrast with the Connie-Innes case, however, we do not need the background information to know that at least one (if not both) of the beliefs in each set is unjustified. Further, it would not matter if we included their beliefs about LP.14 The conditions on justification preclude the possibility of holding justified inconsistent beliefs. Justification is therefore entirely insensitive to epistemic dimension on which Diana and Unwin differ.

2.4  **Epistemic Anarchism**

Sensitivity to a dimension of epistemic value does not guarantee that SER is epistemological significant. We also need a vindication. First, however, we should head off a worry about the own-standards conception. If the courtesy shown to Diana is extended to all, won’t that lead to “epistemic anarchism”?15 If SER means whatever the agent says goes, structural rationality would hardly be an *epistemic* evaluation, much less an epistemologically significant one.

John Broome has developed a version of this worry.16 He identifies the own-standards approach as attempting to eliminate *strict liability* from

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14 I haven’t included these beliefs in part because that would raise Achilles-Tortoise-style worries (Carroll, 1895) I do not have space to deal with. Further, I think the Diana-Unwin verdicts would stand even if they never formed explicit LP beliefs, but instead were raised in a cloistered dialetheic community. In §3.3, I put the matter in terms of a “pattern commitment.” I develop and clarify that notion in a longer version of this paper, but do not have space to do so here.

15 This term is from Clayton Littlejohn (2018, p. 264), who makes an argument similar to the one below against a related position.

16 (Broome, 2013, pp. 91-100). I have taken some liberties to align Broome’s discussion and terminology with ours (particularly with respect to the condition, Subjective Liability, which adapts the requirement he presents on p. 93). I believe
rational requirements. E.g. Innes and Diana may both hold contradictory beliefs, but Diana’s rejection of LNC means that hers are not thereby liable for negative (structural) evaluation.

This is, Broome says, “a nice liberal thought,” but eliminating strict liability is impossible. Suppose we try to capture the own-standards idea with the following condition.

**SUBJECTIVE LIABILITY**

S rationally holds D only if S does not believe holding D violates any condition on rationality.

Broome points out that Subjective Liability itself imposes strict liability. One could not avoid its reach by rejecting it the way it allows Diana’s dialetheism to put her beliefs beyond a non-contradiction condition. Broome’s response is to make peace with strict liability generally, but what happens if we try to eliminate the remaining strict liability?

**RADICALLY SUBJECTIVE LIABILITY**

S rationally holds D only if S does not believe that they irrationally hold D.

This will not do, as it is just the sort of subjectivity that would belie SER as an *epistemic* evaluation. Satisfaction with self-affirmation is appropriate for Stuart Smalley, not Stuart Cohen.

Fortunately, the problem here is not with the own-standards idea *per se*, but attempting to capture it *via* an enkratic condition. Doing so pins rational status to evaluative beliefs that are unmoored from any restrictions—whatever the agent says goes. But this gives us *own-evaluation* rationality, not *own-standards* rationality. SER’s standards are agent-relative in the sense that the liabilities imposed, are determined by properties of the agent, but the relevant property is not the agent’s opinion about whether those standards are met.

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that the changes are charitable, but, either way, it is the argument as presented that is relevant.
(Note, too, that this distinction is not undermined if an agent believes “What I say goes.” That is not a structural standard. SER is a coherence evaluation, and only holds agents liable for meeting their own standards of coherence. There is not space to investigate what determines when a standard is a standard of coherence, but clearly these can be provided by logics (classical or deviant) and not by ex epistemic cathedra declarations.)

3 Vindicating SER

3.1 Clarifying ‘vindication’

Laurence BonJour (1985), attempts to provide “a vindication of [his] proposed standards of epistemic justification” by showing “that adopting those standards is a reasonable means for reaching the main cognitive goal” (p. 9).17 Our use of ‘vindication’ is roughly the same. However, we’re out to vindicate SER as an epistemic evaluation, so we are interested in the constraints put on SER standards by the definition above, rather than a specific proposal of those standards.

To illustrate, let’s consider a vindication of this sort for justification. Justification is the archetypically epistemologically significant rational evaluation. Why? A highly plausible answer is its truth-connection. Any account thereof had better have it that justified beliefs are more likely to be true than unjustified ones.18 BonJour’s proposal for the “main cognitive goal” shows why this is relevant.

“What makes us cognitive beings at all is our capacity for belief, and the goal of our distinctly cognitive endeavors is truth: we want our beliefs to correctly and accurately depict the world.” (p. 7)19

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17 Bonjour attributes the idea to (Feigl, 1950). However, Feigl argues for vindication in terms of our agental goals rather than in terms of strictly cognitive goals.
18 At least, ceteris paribus, with the relevant ceteri depending on the details of the account (e.g., that we aren’t brains in vats, for internalists.)
19 One needn’t be an epistemic teleologist to endorse such a truth goal. Marian David’s diverse list of those who do includes Alston, BonJour, Chisholm, Conee, Descartes, Goldman, Lehrer, Plantinga, and Sosa (2001, pp. 151-152).
BonJour frames this *truth-goal* in terms of beliefs, and his explanation of the relationship is helpful in clarifying the appropriate understanding of the goal. It isn’t to acquire as many true beliefs as possible, but to “accurately depict the world” with the beliefs we do form. However, we might reasonably ask why the fundamentality of beliefs means that the main cognitive goal is truth. BonJour’s answer that we *want* our beliefs to be correct is not particularly satisfying. While that is the norm, we might also want beliefs that are useful or incline us toward virtue, and such goals do not seem relevant to *epistemic* justification the way truth is. A better answer appeals to the *truth-aim* of belief.²⁰ Perhaps the commonest interpretation is that this is a *constitutive* aim. Beliefs are essentially representational, and representations have essential accuracy conditions. Belief therefore aims at truth in that, by their very nature, they are correct *iff* true.²¹

So, cognition is constituted by beliefs; these constitutively aim at truth; therefore, truth is the fundamental cognitive goal. Given justification’s truth-connection, holding justified beliefs is a reasonable means of achieving that goal.

### 3.2 Fundamental cognitive goals

Were truth the only basis for vindication, SER would be in a tight spot. As Peter Klein and Ted Warfield have argued, “coherence, *per se*, is not truth conducive... by increasing the coherence of a set of beliefs, the new, more coherent set of beliefs is often less likely to be true” (1994, p. 129). However, truth is not the only cognitive goal. It is traditionally paired with an *anti-falsity* goal—the goal of not believing falsely.²²

How does this help? Consider again SERi with the classical interpretation of ‘coherent’. On that rendering, structural rationality promotes this second goal, because there is no possible world in which all members of an incoherent set of beliefs are true, and SERi flags these as irrational. Structural *irrationality* indicates guaranteed failure to achieve the anti-falsity

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²⁰ Cf. (Williams, 1973).
²² Even since the *locus classicus* for discussion of cognitive goals, (James, 1969).
goal. True, structural rationality does not guarantee achievement of that goal, but neither does justification guarantee achievement of the truth-goal.

Of course, we’ve abandoned SERi for SER, which, we’ve seen, doesn’t necessarily deem logically impossible sets of beliefs irrational. It therefore promotes neither traditional cognitive goal. But tradition needs amending.

Notice that introducing a second cognitive undermines the constitutive foundation for vindicating justification. The truth-aim of belief could ground anti-falsehood to the extent that believing truly means not believing falsely, but cognition does not consist solely in belief. For one, it includes withholding, which is also subject to justificational standards. Moreover, there is a fundamental tension between truth and anti-falsehood that is brought out by justified withholding. It promotes the latter goal at the expense of guaranteeing failure to achieve the former.

In response to this tension, Wayne Riggs23 has (tentatively) suggested a third, higher-order goal of understanding the world, which, “requires achieving our two traditional goals,” but also, “requires an appreciation for order, fit, and pattern” (2003, p. 350). I think the relevance of “order, fit, and pattern” is a key insight into a problem with the dual goal picture, but that it is better incorporated by amending the two goals that we already have. Moreover, we can do so in a way that reestablishes constitutive grounding for cognitive goals.

Like beliefs, cognitive systems are essentially representational. However, not all representations are the same. Consider the difference between a picture and the “pixels” it comprises. Both the individual pixels and the composite picture are representational. Both are therefore subject to accuracy conditions, but there is a significant difference in these conditions. For pixels, they are binary—each gets it right or wrong with no in between. Not so for the picture, which can be accurate to a greater or lesser degree. (Stipulate ‘correctness conditions’ as the binary sort, reserving ‘accuracy conditions’ for the degreed sort.) This is only in part because the picture comprises multiple pixels. Pictures equal in number and proportion of correct pixels can differ wildly in degree of accuracy. How so? By differing in “order, fit, and pattern” of those pixels.

23 Allan Hazlett (2017) makes a similar proposal.
The analogy is, I hope, clear. Representationally, cognitive systems are no more the sum of their beliefs pictures are the sum of their pixels. Beliefs are essentially binary-type representational, and they therefore have the constitutive aim of truth (correctness). Cognitive systems are essentially degree-type representational. Thus, they too have a constitutive aim, but of accuracy, not correctness. Call it the (constitutive) accuracy-aim of cognition.

This picture-picture shows us that, in fact, truth and anti-falsehood are fundamental doxastic goals. The fundamental cognitive goals are more perspicuously rendered accuracy and anti-inaccuracy. Achieving these requires not only truth and anti-falsehood, but also “appreciation for order, fit, and pattern.”

3.3 Vindicating SER

Amending the cognitive goals is relevant to our vindication because coherence is a fundamental fitting relation. Traditional structural evaluations are agent relative in that they focus on coherence, thereby ignoring whether a set of beliefs is actually correct, or even probably correct, to ask whether they are at least possibly jointly correct. Thus, we saw that SERi flagged guaranteed failure to meet the anti-falsehood goal. SER’s move to self-coherence can be seen as a recognition that there is more to accurate cognitive representation than doxastic correctness. By evaluating for self-coherence, SER fully realizes the agent-relative purpose of structural evaluation because it further ignores (actual or probable) accuracy of the agent’s epistemic commitment with respect to pattern, to ask whether it is at least possible that the pattern and beliefs are jointly accurate.

This, then, is our vindication of SER. It promotes the fundamental cognitive goal of avoiding inaccurate representation in that structural irrationality flags guaranteed failure to meet that goal, whether through incorrect belief or inaccurate representation of pattern. SER is therefore an epistemically valuable evaluation. And, as we have seen, this value is not superfluous to that of justification, given that justification is insensitive to pattern-inclusive possible joint accuracy. We can conclude, therefore, that SER is epistemologically significant.
REFERENCES


Sylvan, K. (ms.). On Divorcing the Rational and the Justified.