

# THINKING TWICE ABOUT VIRTUE AND VICE: PHILOSOPHICAL SITUATIONISM AND THE VICIOUS MINDS HYPOTHESIS

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**ABSTRACT:** This paper provides an empirical defense of credit theories of knowing against Mark Alfano's challenges to them based on his theses of *inferential cognitive situationism* and of *epistemic situationism*. In order to support the claim that credit theories can treat many cases of cognitive success through heuristic cognitive strategies as credit-conferring, the paper develops the compatibility between virtue epistemologies *qua* credit theories, and dual-process theories in cognitive psychology. It also provides a response to Lauren Olin and John Doris' 'vicious minds' thesis, and their 'tradeoff problem' for virtue theories. A genuine convergence between virtue epistemology and dual-process theory is called for, while acknowledging that this effort may demand new and more empirically well-informed projects on both sides of the division between Conservative virtue epistemology (including the credit theory of knowing) and Autonomous virtue epistemology (including projects for providing guidance to epistemic agents).

**KEYWORDS:** bounded rationality, dual-process theory, ecological rationality, heuristic reasoning, situationism, virtue epistemology

## 1. The Great Rationality Debate

One goal of this paper is to defend virtue epistemology (hereafter VE) against a number of charges that Mark Alfano brings against it based upon the incompatibility of its claims with epistemic situationism, and that Lauren Olin and John Doris bring against it based upon an objection we can call the 'trade-off' problem.<sup>1</sup> The latter problem alleges a dilemma in the form of a necessary tradeoff with ill-consequences for VE, a trade-off between the normative appeal of a virtue-theoretic (ability) condition on knowing, and the empirical adequacy of such a condition. Doris presented a short version of the trade-off problem in his

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<sup>1</sup> Mark Alfano, *Character as Moral Fiction* (Cambridge: Cambridge University Press, 2013); Lauren Olin and John M. Doris, "Vicious Minds," *Philosophical Studies* 168, 3 (2014): 665-692; John Doris, *Lack of Character* (Cambridge: Cambridge University Press, 2002).

critique of virtue ethics in *Lack of Character*, Olin and Doris develop the problem, extending it into a challenge for virtue epistemologies as well.

At the same time, however, the paper will have more constructive goals than that of defending VE against the challenge of philosophical situationists and their close cousins. Epistemologists have not paid enough attention to what psychologists call the *normative-descriptive gap*, or to the ‘bounded’ or ‘ecological’ nature of human cognition. Our human susceptibilities to motivational and cognitive biases may be well-recognized by today’s more naturalistically-inclined philosophers. But there remains a worry about normative theories in ethics and epistemology, shared by many in the social scientific community, which must be a concern for virtue theories as well: philosophers must be warned of repeating the errors of the past by permitting discussions of ethical and epistemic normativity to continue as a ‘separate culture’ from the social and cognitive sciences. As Appiah puts the point, “The questions we put to the social scientists and physiologists are not normative questions. But their answers are not therefore irrelevant to normative questions.”<sup>2</sup>

Naturalistic virtue theory agrees: It is a dubious non-naturalism in philosophy, and in particular an intellectualist tradition associated with the autonomy of philosophy from the human and natural sciences, that motivates the separate cultures notion. Virtue theories have arguably been at the forefront of the movement to integrate the scientific image of humans into normative ethics and epistemology. But my approach suggests that much more attention needs to be paid by ethicists and epistemologists both to the normative-descriptive gap and more particularly to how to conceive the relationships between ‘reasoning and thinking,’ ‘competence and performance,’ and ‘assessment and guidance.’ In terms of positions in the great debate over human rationality which has raged over the past half-century, I will try to show virtue theorists as Meliorists standing against the situationist’s Skepticism. But avoiding the traps of intellectualism and the philosophy-as-autonomy view also means distancing one’s stance from those proponents of the Apologist and Panglossian positions who Daniel Kahneman chastised decades ago as acknowledging only two categories of errors, “pardonable errors by subjects and unpardonable ones by psychologists.”<sup>3</sup>

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<sup>2</sup> Kwame Anthony Appiah, *Experiments in Ethics* (Cambridge: Harvard University Press, 2008), 62.

<sup>3</sup> Daniel Kahneman quoted from Keith Stanovich and Richard West, “Individual Differences in Reasoning: Implications for the Rationality Debate?” in *Heuristics and Biases: The Psychology of Intuitive Judgment*, eds. Thomas Gilovich, Dale W. Griffin, and Daniel Kahneman (Cambridge: Cambridge University Press, 2002), 421.

Let us be somewhat clearer about what will be the critical and constructive goals of the paper. On the critical side I take the approach of empirical rebuttal and argue that Alfano's two key theses, which he terms *inferential cognitive situationist* (ICS) and *epistemic situationist* (ES) (sections 2 and 3, below) are *generalizations* that are not strongly supported by the selection of studies in cognitive and social psychology (respectively) he bases them on. Generalization as a form of inductive arguments is assessed as either strong or weak, and weak inductive arguments are akin to invalid deductive arguments in falling short of logical compulsion. If such generalizations as philosophical situationism depends upon are not as strong or cogent as they claim, then of course they do not provide a benchmark (as their challenges assume) against which the empirical adequacy of an epistemology should be measured. Sections 2 and 3 respond to challenges directed against the more reliabilist and the more responsibilist versions of VE, respectively. But my *weak generalization* claim about the status of Alfano's two key theses regarding human cognitive agency also extends to Olin and Doris' 'vicious mind' thesis. These authors claim to infer from their discussion of select studies to the 'enormous' variability in human cognitive functioning due to our sensitivity to even slight situational variables. Section 4 offers a fuller response to their 'trade-off' problem for virtue theories than I have previously given, allowing me a chance to more fully develop the *Narrow-Broad Spectrum of Agency-Ascriptions* I alluded to in an earlier exchange.<sup>4</sup>

On the constructive side, I concede that few extant versions of VE have tried explicitly to square themselves with bounded rationality, or with dual-process theory (hereafter DPT), as I will argue that they should. Indeed, there has been more work on accommodating DPT among ethicists than among epistemologists.<sup>5</sup> Bounded rationality, extending from seminal work by Herbert Simon, asks and studies how real people make decisions with limited time, information, and computation. Gerd Gigerenzer writes that the science of

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<sup>4</sup> Guy Axtell, "Agency Ascriptions in Ethics and Epistemology," in *Virtue and Vice, Moral and Epistemic*, ed. Heather Battaly (Oxford: Wiley/Broadview Press), 73-94. See also Christopher Lepock, "Unifying the Intellectual Virtues," *Philosophy and Phenomenological Inquiry* 83, 1 (2011): 106-128.

<sup>5</sup> Daniel Lapsley and Patrick Hill, "On Dual Processing and Heuristic Approaches to Moral Cognition," *Journal of Moral Education* 37, 3 (2008): 313-332; Holly M. Smith, "Dual-Process Theory and Moral Responsibility," in *The Nature of Moral Responsibility: New Essays*, eds. Randolph Clarke, Michael McKenna, and Angela M. Smith (Oxford: Oxford University Press, 2015), 176-208; Nancy Snow, *Virtue as Social Intelligence: An Empirically Grounded Theory* (London: Routledge, 2009); Snow, "Habitual Virtuous Actions and Automaticity," *Ethical Theory and Moral Practice* 9, 5 (2006): 545-561.

heuristics “Asserts that ecologically valid decisions often do not require exhaustive analysis of all causal variables or an analysis of all possible actions – and – consequences. The best decisions do not always result from such effortful, reflective, calculations, but instead rely on ‘frugal,’ incomplete and truncated inquiry.”<sup>6</sup> Ecological rationality challenges expectations that human reasoners are rational or justified only when they meet normative standards derived independently of empirical and social psychology. It suggests that demands upon rationality be perfectly feasible for agents, computationally speaking, and that norms of epistemic assessment, while still truth connected, not be ‘free-floating’ impositions.<sup>7</sup> That cognition is so heavily ecological means that norms of epistemic rationality and responsibility bump up against pragmatic constraints and inborn limitations in ways that challenge ideal observer and maximizing conceptions of reasoning.<sup>8</sup>

Gigerenzer’s approach has substantial differences from those versions of ecological rationality that I want to highlight in this paper, versions that fall under the umbrella term of dual process theories. No less a pioneer of the biases and heuristics studies than Daniel Kahneman notes that “Tversky and I always thought of the heuristics and biases approach as a two-process theory.”<sup>9</sup> What he describes in his recent book *Thinking, Fast and Slow* as ‘Type 1’ and ‘Type 2’ thinking (hereafter T1/T2) merely modifies terms he acknowledges were introduced first by Keith Stanovich, Richard West and Jonathan St. B.T. Evans, whose work we will focus on in the next section.

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<sup>6</sup> Gerd Gigerenzer, *Ecological Rationality: Intelligence in the World* (Oxford: Oxford University Press, 2012), 20.

<sup>7</sup> See Rysiew’s helpful conditions on psychology-sensitive philosophical norms of rationality, in Patrick Rysiew, “Rationality Disputes – Psychology and Epistemology,” *Philosophy Compass* 3, 6 (2008): 1153-1176.

<sup>8</sup> Gigerenzer sees the facts of ecological rationality challenging what he terms the ‘classical conception of rationality,’ a conception with ‘appealing but often unrealistic goals’ that he thinks is anti-naturalistic in its tenor yet remains still deeply-rooted in philosophy, economics, and decision theory. The standard view in the cognitive sciences associated with unbounded rationality Gigerenzer blames for the institutionalized division of labor between principles based upon the ‘is’ and ‘ought’ division. “Until recently, the study of cognitive heuristics has been seen as a solely descriptive enterprise, explaining how people actually make decisions. The study of logic and probability, by contrast, has been seen as answering the normative question of how one should make decisions.” (Gigerenzer, *Ecological Rationality*, 496). This split or schism Gigerenzer thinks has served to wrongly elevate logic and probability above heuristics; the result is “contrasting the pure and rational way people *should* reason with the dirty and irrational way people in fact *do* reason.”

<sup>9</sup> Daniel Kahneman, *Thinking, Fast and Slow* (New York: Farrar, Straus & Giroux, 2012).

Since few attempts have already been made to square virtue theory with ecological rationality or with dual-process theory, this paper is one with prescriptive implications for the direction of epistemological research. My title should be taken to reflect the idea that virtue theorists both in ethics and epistemology *do* indeed need to think twice if their appeal to person-level abilities and to characterological concepts more generally is to be empirically-informed and naturalistically sound. Adapting Evans' book title *Thinking Twice: Two Minds in One Brain* (2010),<sup>10</sup> the real and direct challenge to virtue epistemologists as I conceive it, is to rethink the *epistemic credit*-related family of concepts in light of the distinction between (T1) fast, automatic, holistic, and intuitive ways of thinking that require relatively little cognitive effort, and (T2) slow, deliberative, and serial or analytic ones that require substantially more sustained cognitive effort [see **Table 1** reprinted from Evans and Stanovich].<sup>11</sup> Thinking fast/frugally and slow/effortfully are both adaptive; both are routinely successful, although both can also fail. But far too often an effortful, maximizing conception of rationality has been taken as paradigmatic, with heuristic reasoning viewed only as a source of error and dysrationalia. So my thesis of possible convergences between normative epistemology and DPT prescribes substantial rethinking on the part of epistemologists, including proponents of VE.

**Table 1.** Clusters of Attributes Frequently Associated With Dual-Process and Dual-System Theories of Higher Cognition

Type 1 process (intuitive)	Type 2 process (reflective)
Defining features	
<i>Does not require working memory</i> <i>Autonomous</i>	<i>Requires working memory</i> <i>Cognitive decoupling; mental simulation</i>
Typical correlates	
Fast	Slow
High capacity	Capacity limited
Parallel	Serial
Nonconscious	Conscious
Biased responses	Normative responses
Contextualized	Abstract
Automatic	Controlled
Associative	Rule-based
Experience-based decision making	Consequential decision making
Independent of cognitive ability	Correlated with cognitive ability
System 1 (old mind)	
Evolved early	System 2 (new mind)
Similar to animal cognition	Evolved late
Implicit knowledge	Distinctively human
Basic emotions	Explicit knowledge
	Complex emotions

<sup>10</sup> Jonathan St. B. T. Evans, *Thinking Twice: Two Minds in One Brain* (Oxford: Oxford University Press, 2010).

<sup>11</sup> Reprinted from Jonathan St. B.T. Evans and Keith Stanovich, "Dual Process Theories of Higher Cognition: Advancing the Debate," *Perspectives on Psychological Science* 8, 3 (2013): 223-242, 224.

## 2. Abilities, Heuristic Reasoning, and Epistemic Credit

In his book *Character as Moral Fiction* and papers leading up to it, Mark Alfano poses the following dilemma for reliabilist and mixed virtue epistemologies:

First Horn: If they say that heuristics are not intellectual virtues, skepticism looms: If most people use non-virtuous heuristics, then most people have a large number of unjustified beliefs, which do not count as knowledge.

Second Horn: If, however, they say that heuristics are intellectual virtues, then they need to explain how these dispositions are to be construed as reliable.

The dilemma tries to force a choice between holding absolutely either that heuristic reasoning is or isn't virtuous. Virtue epistemologists do not want to set conditions on knowledge so high that knowledge becomes scarce. But embracing the second horn Alfano thinks is barred by the thesis of *inferential cognitive situationism* (ICS):

(ICS) People acquire and retain most of their inferential beliefs through heuristics rather than intellectual virtues.<sup>12</sup>

Arguably, there is a problem with Alfano's statement of the problem since (ICS), by *presupposing* that heuristics are not virtues (the either/or language of 'rather than') begs the question against someone who wants to 'grab the second horn' of the dilemma. But more charitably, since all of Alfano's and Olin and Doris' challenges focus specifically around the aretaic or ability condition that credit (or achievement) theories<sup>13</sup> place upon knowledge possession, I will construe the demand for clarity about the status of heuristics to be about whether virtue epistemologists can accommodate them in a credit theory of knowing. If knowledge is an achievement creditable in significant measure to an agent's manifestation of ability/virtue, how can inferences that apply heuristic reasoning *instead* of patterns that we recognize as sound and reliable inferential practice, count as virtuous?

The issue Alfano raises is indeed important, but the demand he places upon reliabilist and mixed VE seems to me a false dichotomy, so I will go 'Between the Horns' of his dilemma in reply. For Alfano's dilemma clearly takes 'heuristics' and 'cognitive virtues related to deductive and inductive reasoning' out of context from bounded rationality theories. Although bringing concern with heuristic reasoning to the forefront of epistemology can be applauded as likely to spur

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<sup>12</sup> Alfano, *Character as Moral Fiction*, 201 and 191.

<sup>13</sup> I here take 'credit theory' as a general type of analysis broad enough to include both Robust and Anti-luck VE.

progress in the field, virtue epistemologists can surely avail themselves of leading theories in cognitive psychology, theories on which it would be absurd a demand a choice between the reliability or unreliability of heuristic strategies. Cognitive and social psychology indeed militates against pitting facts about *thinking* against norms of *reasoning* in the way that Alfano's dilemma pits them. To briefly digress, DPT and Gigerenzer's ecological rationality theory have some sharp differences,<sup>14</sup> but it is fundamental to the broader 'new paradigm' in cognitive psychology which they share that intuitive and reflective thinking can each be highly reliable when well-matched to the agent's problem situation. In Evans' terms, "both Type 1 and Type 2 processing can lead to 'good' or normative answers."<sup>15</sup>

Although logocentrism, and a deductivist bias, still casts its shadow on philosophy's ways of approaching norm governance, most epistemologists, and I think all of those associated with VE, are today concerned with human thinking, not just 'reasoning,' and with inference, not just 'argument.' Concerns with success on cognitive tasks through heuristic strategies and T1 processing should indeed prompt a more minimal account of epistemic credit than an epistemology could offer if it remained locked into understanding reasoning and inference only on the model of *argument*. As Paul Thagard argues, a naturalistic epistemology consistent with the successes of ecologically rational agents needs to maintain that "rationality should be understood as a matter of making effective inferences, not just good arguments."<sup>16</sup> But assumptions that might restrict epistemic credit to the

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<sup>14</sup> Gigerenzer's ecological rationality theory finds unmotivated the division into two types, systems, or 'minds,' arguing instead that intuitive and deliberate judgments are based on common principles such that a unitary rather than a dual-process account can be given of them. But the overlap of shared lessons from cognitive psychology is nevertheless broad. See Arie W. Kruglanski and Gerd Gigerenzer, "Intuitive and Deliberate Judgments are Based on Common Principles," *Psychological Review* 18, 1 (2011): 97-109.

<sup>15</sup> Jonathan St. B.T. Evans, "Dual-Process Theories of Reasoning: Facts and Fallacies," in *The Oxford Handbook of Thinking and Reasoning*, eds. Keith J. Holyoak and Robert G. Morrison (Oxford: Oxford University Press, 2012), 23. See also Evans, "Questions and Challenges for the New Psychology of Reasoning," *Thinking & Reasoning* 18, 1 (2012): 5-31; David Over, "New Paradigm Psychology of Reasoning," *Thinking & Reasoning* 15 (2009): 431-438.

<sup>16</sup> Paul Thagard, "Critical Thinking and Informal Logic: Neuropsychological Perspectives," *Informal Logic* 31, 3 (2011), 152. Manktelow (*Thinking and Reasoning*) and Over ("The New Paradigm") both discuss how seminal to psychology the *gap problem* and the distinction between reasoning and thinking have been. Compare Thagard, writing as a naturalistic epistemologist critiquing the costs of confusing inference and argument: "If inference were the same as argument, it would have the same serial, linguistic structure. However, there's ample evidence from cognitive psychology and neuroscience the human inference is actually parallel

latter are hardly to be associated with reliabilist VE, where naturalistic orientation runs highest. Epistemic credit associated with knowledge-attributions generally demands only weak cognitive achievements unless we are talking about specifically *reflective* knowledge. If this is correct then it can credit successes that might be easily had in untaxing ways in epistemically friendly environments.<sup>17</sup> One would think that the turn in epistemology from states and standings to epistemic agency and inquiry would underline these points. Evans writes,

From a pragmatic viewpoint, even if people fall prey to certain biases, it does not mean they are irrational [or generally unreliable, or ‘vicious’]. Making mistakes can still be part of a rational, or a reliable, or an intellectually virtuous agent’s repertoire. As some leading dual process psychologists have argued more explicitly, errors of thinking occur because of, rather than in spite of, the nature of our intelligence. In other words, they are an inevitable consequence of the way in which we think and a price to be paid for the extraordinary effectiveness with which we routinely deal with the massive information processing requirements of everyday life.<sup>18</sup>

Another way of putting my point is that having an account of inferential knowledge and recognizing virtues connected with sound deduction and abduction does not commit epistemologists to what Adam Morton, in his recent book *Bounded Thinking: Intellectual Virtues for Limited Agents* calls an N-theory of rationality. N-theories derive their norms *independently* of ecological considerations of time, information, and energy, and so often maintain some computationally demanding conception of rationality. Another aspect of the appeal of the naturalistic turn in epistemology, which virtue theory provides an interpretation of, is that we should not dichotomize (as non-naturalistic theories sometimes have) between norms of epistemic assessment and the aim of providing agents with guidance. While naturalistic approaches in epistemology will still recognize that the normativity of assessment and guidance should be distinguished, questions of psychology cannot be treated today as they sometimes

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rather than serial, multimodal rather than just language-based, and as much emotional as cognitive” (Thagard, “Critical Thinking,” 152).

<sup>17</sup> Compare Pritchard, who identifies strong cognitive achievements with overcoming a significant obstacle to cognitive success, or with the manifestation of high levels of cognitive skill. Weak cognitive successes by contrast are those where it is very easy to attain the relevant cognitive success. Here “one will meet the rubric for cognitive achievements pretty easily.” (Duncan Pritchard, “Virtue Epistemology and the Epistemology of Education,” *Journal of Philosophy of Education* 47, 2 (2013): 236-247, 240.)

<sup>18</sup> Evans quoted in Robert Sternberg and Talia Ben-Zeev, *Complex Cognition: The Psychology of Human Thought*, (Oxford: Oxford University Press, 2001), 194.



have in the past as merely pragmatic or as only guidance but not assessment-related.<sup>19</sup> By focusing on how our intellectual habits, whether genetically-based or acquired, ground our pretensions to knowledge, understanding, or other epistemic goods, virtue epistemologies it seems to me bypass the worries about N-theories and armchair epistemologies that always demand of agents lots of self-reflection and high effort or ‘load-heavy’ cognitive processing.

It is only when an agent applies a cognitive strategy (such as a heuristic pattern of reasoning) *outside* its known range of reliability, or perhaps where System 2 or metacognitive ‘over-ride’ skills and sensitivities were expected of virtuous agents but were not manifested, that epistemologists are likely to balk at credit for success. In these instances error possibilities are high, and the agent’s employed strategy is said to have a low *ecological validity*. Judgments of these sorts may rightly be used to deny epistemic credit (and hence knowledge or understanding). Of course, the instances where T2 over-ride failures occur in humans are many and not few. Philosophers have not come to grips with what Kahneman simply describes as ‘the quirkiest of System 1 and the laziness of System 2.’ There are numerous causes of *dysrationalia* in heuristics and biases task experiments that DPT recognizes, including failure to detect the *need* to override a heuristic response, lack of acquired ‘mindware’ available to carry out override, and inability for ‘sustained decoupling’ that allows hypothetical reasoning and other powerful metacognitive aptitudes to engage.

To summarize thus far, I think there is ample opportunity to go ‘Between the Horns’ of Alfano’s dilemma for reliabilist and mixed virtue epistemologies. No one need deny the valuable functions that N-theories serve;<sup>20</sup> but neither should a credit theory of knowing place the agent under any assumed burden of following strategies that maximize cognitive load. VE can and should agree with DPT that,

Since the fast, automatic, and evolutionarily older system requires little cognitive capacity, everyone has the capacity to deal rationally with many reasoning and decision making problems that were important in the environment in which we evolved. Moreover, since the new, slow, rule-based system can be significantly affected by education, there is reason to hope that better educational strategies

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<sup>19</sup> Michael Bishop, who clearly holds that bounded rationality should deeply impact our approach to epistemic normativity, finds that the received internalist notion of responsibility is what heuristic reasoning especially challenges. (Michael Bishop, “In Praise of Epistemic Irresponsibility: How Lazy and Ignorant Can You Be?” *Synthese* 122, 1 (2008): 179-208, 179. See also Michael Bishop and J.D. Trout, *Epistemology and the Psychology of Human Judgment* (Oxford: Oxford University Press, 2005).)

<sup>20</sup> See Adam Morton, *Bounded Thinking: Intellectual Virtues for Limited Agents* (Oxford: Oxford University Press, 2013).

will improve people's performance on those problems that the old system was not designed to deal with.<sup>21</sup>

Situationists are skeptics about character-traits, and so also of the claims about individual differences among agents that character-traits help determine. But in order to go beyond arguing for a basic consistency of VE with cognitive psychology's recognized continuum between fast and slow, or intuitive and reflective ways of processing, I offer reflections on three specific guiding themes in the work of Evans and Stanovich that I think point out potential *convergences* between them:

**Individual differences.** According to proponents of DPT there are few continuous individual differences among people with respect to autonomous mind, or Type 1 processing. We are all energy economizers and want to fit strategies to problems ecologically when we can, rather than doing the 'expensive' reasoning of ideal inquirers *qua* unbounded reasoners. But they also insist that "the intelligence of the new mind is quite variable across individuals."<sup>22</sup> DPT both predicts and finds confirmed substantial individual differences in what Stanovich terms 'rational thinking dispositions' and therefore recognizes "individual differences as essential components of heuristics and biases research."<sup>23</sup> The cultivation of general intellectual virtues that help attenuate cognitive biases and inappropriate heuristic responses strongly overlaps with what Stanovich and his colleagues term the cultivation of our *fluid rationality*. Fluid rationality describes a range of available *critical reasoning dispositions*. Research shows that those who do poorly on cognitive task tend to be 'cognitive misers' in the way that they process, while those who do better than average exhibit a more desirable collaboration between their T1 and T2 thinking, and as Stanovich has it [Table 2], between our *crystallized* and *fluid* rationality. Some of the imperfect but powerful aptitudes fluid rationality describes are 'resistance to miserly information processing,' and 'absence of irrelevant context effects in decision making.'

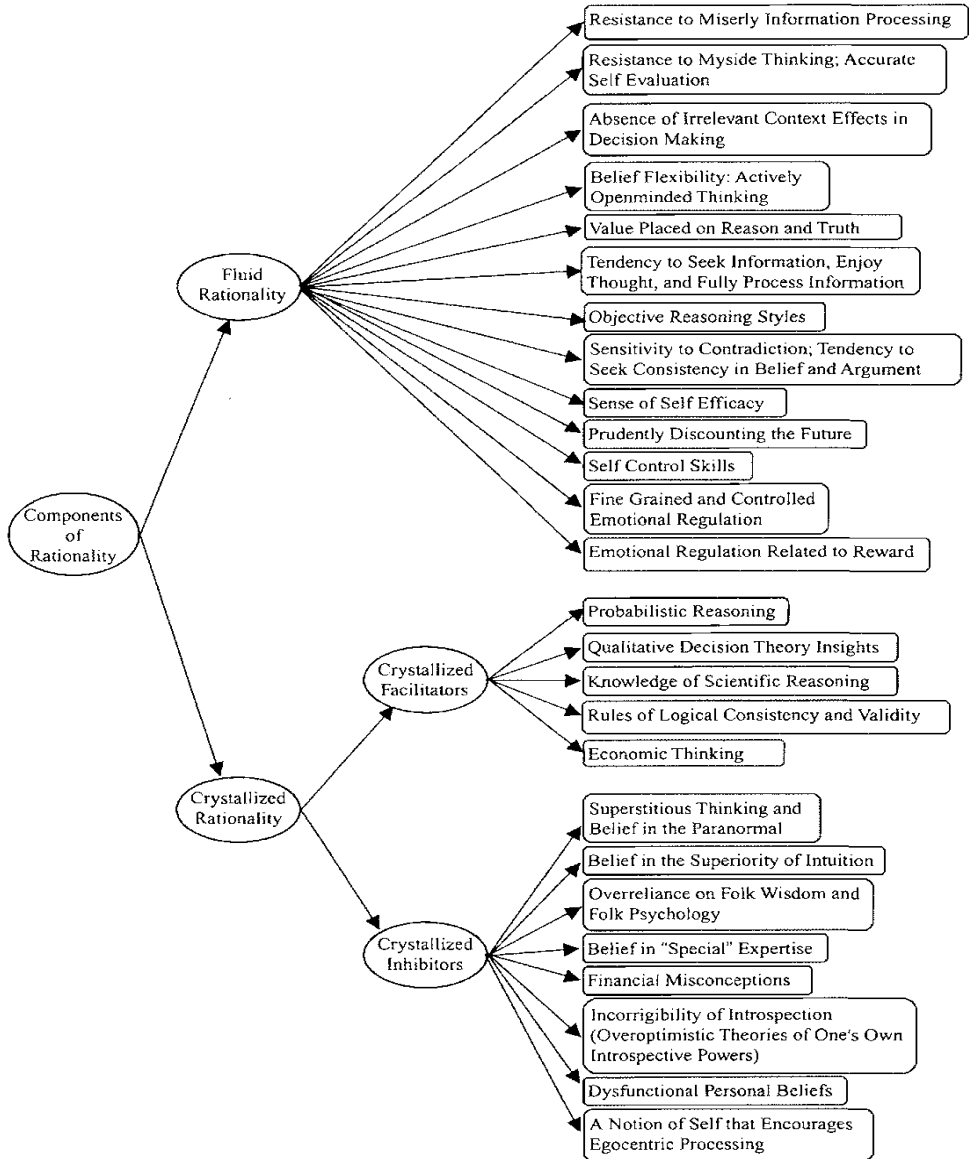
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<sup>21</sup> Richard Samuels and Stephen Stich, "Rationality and Psychology," in *The Oxford Handbook of Rationality*, eds. Alfred R. Mele and Piers Rawling (Oxford: Oxford University Press, 2004): 279-300.

<sup>22</sup> Evans, *Thinking Twice*, 209.

<sup>23</sup> See also Keith E. Stanovich, Richard F. West, and Maggie Toplak, "Individual Differences as Essential Components of Heuristics and Biases Research," in *The Science of Reason*, eds. Ken Manktelow, David Over, and Shira Elqayam (New York: Psychology Press, 2012), 335-396.

Table 2. The Conceptual Structure of Rational Thought<sup>24</sup>



<sup>24</sup> Reprinted from Keith E. Stanovich, Richard F. West, and Maggie Toplak, "Intelligence and Rationality," in *Cambridge Handbook of Intelligence*, eds. Robert Sternberg and Scott Barry Kaufman (Cambridge: Cambridge University Press, 2011), 784-826, 799.

**Critical reasoning dispositions differ from innate IQ and are trainable.** In explaining the significant individual differences in cognitive performance that the heuristics and biases literature evidences, Stanovich urges us to distinguish intelligence from rationality in order to give the proper share to each. For instance, intelligence tests miss much; the magnitude of the myside bias in individuals shows very little relation to intelligence, and avoiding it is one of numerous rational thinking skills that are not assessed by IQ. “[I]ntelligence and rationality occupy different conceptual locations in models of cognition,”<sup>25</sup> and must be measured using different tasks and operations. Individual differences in biases and heuristics tasks are “more related to rationality than intelligence.”<sup>26</sup> Measures of *rational thinking dispositions* are positively correlated with normative performance on tasks and often predict unique outcomes. Of course motivational factors are already in play when we speak of rational thinking *dispositions*. As Evans explains,

For the kinds of problems where reflective reasoning is required, you also need to have the disposition to apply effortful reasoning, rather than to rely on intuitions and feelings. This disposition is partly a matter of personality, but is also influenced by culture and context.<sup>27</sup>

So it is very important from a virtue-theoretic perspective that Stanovich describes many response differences as stemming from differences such as these rather than what IQ tests test for:

[M]ost importantly, IQ is a resource that you have to apply to a problem for it to be of any use to you... so one cause of *dysrationalia* is that while a person of high IQ *could* reason well, they're actually failing to engage their reflective abilities. Instead, they are inclined by their personality or circumstances to rely on gut feelings and intuitions, to be strongly influenced by prior beliefs (which may be false) or prone to social influences by peers (who might not be bright).<sup>28</sup>

So central is this distinction between intelligence and rationality to Stanovich's version of DPT that he quite recently makes a 'tripartite proposal' on which Type 2 reasoning subdivides into the *algorithmic mind* and the *reflective mind*. This subdivision captures the platitude that being intelligent does not

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<sup>25</sup> Research shows “there is a positive correlation between IQ and rational thinking, but it is relatively modest in size...people vary not only in their cognitive ability but also in their disposition to think critically about problems they face...” (Keith Stanovich, *Rationality and the Reflective Mind* (Oxford: Oxford University Press, 2011), 206).

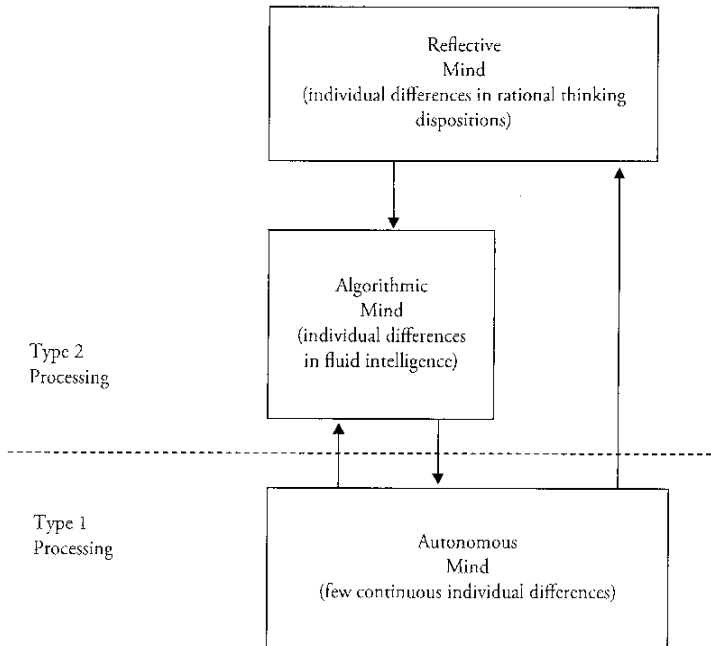
<sup>26</sup> Stanovich, *Rationality and the Reflective Mind*, 206.

<sup>27</sup> Evans, *Thinking Twice*, 210.

<sup>28</sup> Stanovich, *Rationality and the Reflective Mind*, 206.

guarantee being smart [see Table 3]. If you lack the required critical reasoning dispositions or *mindware*, you will find it hard to escape Type 1 intuitive, heuristic responses, even if highly intelligent.

**Table 3. The tripartite structure and the locus of individual differences<sup>29</sup>**



**Meliorism and a balance of inner and outer.** VE and DPT motivate a moderately ‘Meliorist’<sup>30</sup> position in what Stanovich and West call the Great Rationality Debate. Meliorism contrasts with overtly Skeptical automaticity, ‘vicious mind,’ or situationist claims on the one hand, and Apologist/Panglossian views on the other. Stanovich writes that, “What has been ignored in the Great Rationality Debate is individual differences,” something which he cites as devaluing the Meliorist position that proponents of DPT support. Skeptics and Panglossians share an unfounded bent towards underestimating or ignoring the degree of difference

<sup>29</sup> Reprinted from Keith Stanovich, “On the Distinction between Rationality and Intelligence: Implications for Understanding Individual Differences in Reasoning,” in *The Oxford Handbook of Thinking and Reasoning*, 352.

<sup>30</sup> See especially Stanovich, West and Toplak, “Intelligence and Rationality”; and Stanovich and West, “On the Relative Independence of Thinking Biases and Cognitive Ability,” *Journal of Personality and Social Psychology* 94 (2008): 672-695.

found in subject responses in the heuristics and biases studies. Melioristic attitudes of piecemeal improbability of human reasoners are made more plausible by the family of dual processing theories. The point is not unrelated to how Nancy Snow concedes that virtues “might start out by being local,” while holding that “they need not remain so,” and how making knowledge and skills *chronically accessible* through training and habituation is often possible.<sup>31</sup> Kahneman and Frederick for example explore how “complex cognitive operations eventually migrate from System 2 to System 1 as proficiency and skill are acquired.”<sup>32</sup> The automation or chronic accessibility of what was once a slow, effortful process he illustrates through the ability of chess masters to very quickly and without great effort assess the merit of chess moves.

Relatedly, Meliorists are generally moderate in respect to *how* to improve cognitive performance, balancing what might be termed *cognitive change* and *environmental change*. DPT’s prescriptive upshot is that of a *balance* of “teachable reasoning strategies and environmental fixes”; improve the environment where that helps to improve rationality, *and* improve individual skills and competences directly through practice and education.<sup>33</sup> Skeptics about character by contrast criticize character education efforts. In discussing the prescriptive upshot of (ES), Alfano proposes retaining virtue-talk in education primarily as something of a motivational white lie that can enhance short-term cognitive performance primarily by raising the effect of mood. Doris’ conclusion in *Lack of Character* still more pessimistically suggests *turning away* from attempts to develop pedagogy for integrated character to something like enlightened situation-management.<sup>34</sup>

In summary, DPT highlights an empirically well-grounded balance between the inner and the outer. It explains the complex interactions necessary for the successful exercise of different kinds of reasoning, and the trainability of T2 rational thinking dispositions. Behavior is seen as a complex function of the two systems or types reasoning working in cooperation and competition with each other. The importance of T2 skills and dispositions for decision making is evident

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<sup>31</sup> Snow, *Virtue as Social Intelligence*, 37.

<sup>32</sup> Daniel Kahneman and Shane Frederick, “Representativeness Revisited,” in *Heuristics and Biases*, 49-81, 51.

<sup>33</sup> Stanovich, “Distinction,” 359.

<sup>34</sup> Epistemic and moral paternalism *rather than* character cultivation is appealing to Skeptics. Virtue theorists would reject this but could agree that there needs to be a *balance* between managing situations and acquiring virtue (inner/outer management). Of course, managing situations is partly the individual’s job, as the virtuous are often those that wisely avoid temptations, etc. they know they are susceptible to, rather than those who show outstanding continence or willpower.

from the way they monitor T1 responses and potentially correct for the biases that fast, intuitive processes are most vulnerable to. According to Evans,

We actually know quite a lot, from the experiments conducted by psychologists, about when the reflective mind will intervene in decision-making. This will happen more often when people are given strong instructions for rational thinking, for example to engage in logical reasoning and disregard prior beliefs. There will be less intervention when people are given little time to think about the problem, or are required to carry out another task at the same time that requires their attention.<sup>35</sup>

Stanovich puts much the same point by saying that “mindware gaps most often arise from lack of education and experience.”<sup>36</sup>

I conclude that reliabilist VE is not substantially out of accord with DPT, either in terms of individual differences as anticipated and found in test results on heuristics tasks, or in terms of their explanation. The cautious optimism that character epistemology shares with moderate Meliorist social psychology supports the possibilities of substantially improving education for individual rational thinking dispositions. It therefore finds quite congenial the argument that grounds this possibility empirically in the basic distinction between largely innate IQ and largely acquired intellectual habits and skills. Dual process theory can help philosophers address the question of credit worthiness for success of heuristic strategies and T1 processes. At the same time, DPT allows us to reject Alfano’s dilemma regarding VE and inferential knowledge as based upon the false dichotomy, the forced choice between treating heuristics *en toto* as either virtuous or non-virtuous. Finally, together with the other considerations we have raised, it reveals his first key thesis, (ICS), as a *generalization* based upon that false dichotomy (i.e., a principle fallaciously claiming that people employ heuristics ‘rather than’ manifesting reliabilist virtues). The next section turns attention to studies that Alfano uses from social psychology to support a substantially different challenge, one aimed at responsibilist and inquiry-focused forms of VE.

### 3. Responsibility, Reflective Virtues, and Social Environment

When situationists criticize ‘classical’ (neo-Aristotelian) and ‘inquiry-focused’ (Peircean/Deweyan) virtue responsibilism as empirically inadequate, they naturally enough utilize studies from social psychology.<sup>37</sup> The previous section on

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<sup>35</sup> Evans, *Thinking Twice*, 205.

<sup>36</sup> Stanovich, “Distinction,” 356.

<sup>37</sup> John Dewey was very concerned not just in formal reasoning, but in how we *think*. His account of habit is highly attentive to the philosophical importance of entrenched aspects of our

Alfano's dilemma for virtue reliabilists was cast in terms of epistemic credit restricted to achievement of epistemic goods through an individual's ability, but Alfano's suggestion is especially pertinent to testimonial knowledge and to discussion of reflective intellectual virtues like intellectual courage, humility, and trust.

One proposal I appreciate in Alfano's *Character as Moral Fiction* is a need to move away from treating individuals as the bearers of virtue, to thinking of them as "a triadic relation among the agent, a social milieu, and an environment."<sup>38</sup> But apart from the attempts by some thinkers to put demanding intellectual motivation conditions on knowledge,<sup>39</sup> the suggestion to conceive reflective virtues in this 'triadic' way could be related to a wealth of recent work among responsibilists on collective and group virtues, and beyond this to strong overlaps one finds among character epistemology, social epistemology, and feminist epistemology today.<sup>40</sup> As inquiry-focused VE does not partake of what Alfano describes as Linda Zagzebski's 'classical responsibilism,' I will not defend her conditions on knowing.<sup>41</sup> We will instead attend to Alfano's more general claim that "the intellectual virtues traditionally countenanced by classical responsibilism

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cognitive architecture, as well as situational factors within our environment. Habit is the fixed routine of activity which normally predominates, often manifesting in behavior in which consciousness may play only a token role. He states that people often know more with their habits, not with their consciousness; Action may take place with or without an end-in-view, and in the latter case, there is simply settled habit. It is only if a problematic situation arises that habit is disrupted and impulse proves inadequate. At this point, if we have the needed flexibility and metacognitive wherewithal, more effortful thinking intervenes to help resolve the problematic situation, or it does not, and the result is likely to be unsatisfactory. The adjustments are only successful as we have the flexibility of mind to apply a strategy of inquiry well-adapted to the particular situation.

<sup>38</sup> Alfano, *Virtue and Moral Fiction*, 146.

<sup>39</sup> Brendel distinguishes between holding that virtues that function as means of acquiring knowledge are rightly described as dispositions, and the attempt to *define* knowledge in terms of these virtuous dispositions. I agree with her description of Linda Zagzebski's form of virtue responsibilism as leading to 'a counter – intuitive and intellectually over-loaded concept of knowledge.' See Elke Brendel, "The Epistemic Function of Virtuous Dispositions," in *Debating Dispositions: Issues in Metaphysics, Epistemology and Philosophy of Mind*, eds. Gregor Damschen, Robert Schnepf, and Karsten Stüber (Berlin: De Gruyter, 2014). I have elsewhere described inquiry-focused VE as holding an 'overlap' model of ethical and intellectual norms, in contrast to Linda Zagzebski's 'reduction' model. Alfano seems to mean something else by inquiry-focused VE than I do.

<sup>40</sup> Work on civic and collective/group virtues and on theory virtues in science apply aretaic concepts without supposing these to be personal traits.

<sup>41</sup> Linda Zagzebski, *Virtues of the Mind* (Cambridge: Cambridge University Press, 1996).



and inquiry responsible are empirically inadequate.”<sup>42</sup> The support he offers for this empirical inadequacy charge is the force of the thesis he calls *Epistemic Situationism* (ES):

(ES) Most people’s conative intellectual traits are not virtues because they are highly sensitive to seemingly trivial and epistemically irrelevant situational influences.<sup>43</sup>

Alfano’s key theses (ICS) and (ES) are broad generalizations that are purported scientific conclusions from psychological experiments. The main studies that Alfano uses to support his generalization (ES) are the famous Asch Line Task studies of the early 1950’s, and its follow-ups. Staying with the approach of strong empirical rebuttal, I now want to show that Alfano’s use of the Line Task studies depends upon a misleading re-interpretation of them. They do not strongly support the lesson he wants and needs to draw from them. Firstly, Alfano does not mention that the original Asch studies on conformity took place on American subjects exclusively, and during the McCarthy Era when lack of conformity was often identified with lack of patriotism and socially ostracized on that basis. Alfano’s interpretation of the results of these studies is furthermore substantially at odds with the experimenters’ own conclusions. I will now argue that his interpretation is at odds with their own statements both about the *variability of responses* found on the Line Task, and about the *explanations* of these differences in response, where Alfano blatantly ignores Asch’s and Milgram’s explanation involving *cultural* variances.

***Variability of responses:*** Asch did conclude that a majority can influence a minority even in an unambiguous situation in which the correct answer is obvious, confirming (versus M. Sherif) that majority influence is stronger than had been thought. But he saw the studies as clearly showing that people are capable of greater or lesser ‘strength’ in resisting peer pressure. “Among the independent individuals were many who held fast because of staunch confidence in their own judgment.”<sup>44</sup> What Asch and his colleagues found to be ‘the most significant fact’

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<sup>42</sup> Alfano, *Virtue as Moral Fiction*, 185.

<sup>43</sup> Alfano, *Virtue as Moral Fiction*, 162. See also Alfano’s earlier “Expanding the Situationist Challenge to Responsibilist Virtue Epistemology, *Philosophical Quarterly* 62, 247 (2012): 223-249.

<sup>44</sup> Quotations taken from S. E. Asch, “Opinions and Social Pressure,” *Scientific American* 193, 5 (1955): 31-35. Retrieved July 5, 2016, from <http://www.columbia.edu/cu/psychology/terrace/w1001/readings/asch.pdf>. In a later publication, Asch does again say that “errors increased strikingly” among subjects as majority increased, this being measured against control group. Yet

about the fully 25% best-performers who were consistently independent “was not absence of responsiveness to the majority but a capacity to recover from doubt and to reestablish their equilibrium.” They also found that the degree of independence increases with the deviation of the majority from the truth and with “decreased clarity in a situation.” They held that the study “establishes conclusively that the performances of individual subjects were highly consistent”: those who showed independence from or conformity with a majority over which of three presented lines was longest continued the same pattern of response *over time*. This last conclusion from the data deserves special mention since it seems quite *inconsistent* with the claim of (ES) that most people are highly sensitive to situational variables.<sup>45</sup>

What degree of independence is needed to demonstrate significant individual differences is a matter of much dispute among psychologists, but Alfano’s exclusive emphasis on the degree of conformity relative to a control group not exposed to peer pressure presents a one-sided reading, substantially at odds with Asch’s own conclusions emphasizing very substantial individual differences in motivation or ability to resist peer pressure, and high individual consistency over time. Alfano emphasizes that unanimity among confederates ‘produced striking conformity’<sup>46</sup> in test subjects, while Asch himself emphasizes ‘startling differences’ and strong ‘consistency’ among these same subjects. Neither insight is strictly wrong, but neither one is the whole story.

***Explanation of the data:*** Foremost among questions that Asch says his studies raise is the question of the extent to which these ‘startling differences’ can be attributed to ‘sociological or cultural conditions.’ Asch concluded by suggesting that cultural values are among the primary explainers, and that

the tendency to conformity in our society...raises questions about our ways of education and about the values that guide our conduct...anyone inclined to draw

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he also concludes that “Individuals responded in fundamentally different ways to the opposition of the majority,” and that “Despite the effect of the majority the preponderance of estimates was, under the present conditions, independent of the majority.” (“Studies of Independence and Conformity: A Minority of One against a Unanimous Majority,” *Psychological Monographs: General and Applied* 70 (1956): 1-70, DOI: 10.1037/h0093718. Retrieved March 24, 2016, from <http://psyc604.stasson.org/Asch1956.pdf> (12).) Note also that if the line task is a ‘rapid response’ task, recent DPT research *predicts* that this ‘taxing’ effect on subjects will result in lowered performance, even independently of the ‘majority effect’ that Alfano tries to say undermines the robustness of intellectual courage as a character trait.

<sup>45</sup> Asch, “Studies,” 20.

<sup>46</sup> Alfano, *Virtue as Moral Fiction*, 183.

too pessimistic conclusions from this report would do well to remind himself that the capacities for independence are not to be underestimated.<sup>47</sup>

Stanley Milgram in 1961 conducted follow-up *comparative* studies in part to see if Asch was right about cultural values deeply impacting response to peer pressure. Comparing French and Norwegian subjects, he found the *hypothesis of cultural variation* to be corroborated by his study. While his conclusions were phrased tentatively (“These findings are by no means conclusive”), he reported that “No matter how the data are examined they point to greater independence among the French than among the Norwegians.” Yet when Alfano does mention Milgram’s “Nationality and Conformity,” he leaves its guiding *hypothesis of cultural variation* totally out of his presentation, instead re-interpreting this study in a self-serving way as just re-confirming a lesson about humans taken *collectively*: that character-traits are routinely swamped by epistemically-irrelevant situational variables like majority effect. So he writes that “As in the original Asch study, unanimity produced striking conformity.” But while Alfano cites situational factors like majority size as salient, Milgram’s own conclusion actually highlighted the salience of cultural influences supported by the finding that “in every one of the five experiments performed in both countries the French showed themselves to be the more resistant to group pressure.”<sup>48</sup> The situationist interpretation of Line Task studies fails to account for the importance of cultural influence on conformity, as tested across time (Americans in the Fifties vs. the Sixties, say), or across cultures (French versus Norwegians). Alfano also omits any mention of the prominent 1996 meta-study of Asch-type line judgment tasks, which actually drew upon 133 studies in 17 countries. The Bond and Smith meta-study found that “levels of conformity had steadily declined since Asch’s studies in the early 1950s”; in respect to just the U.S. studies it found “that the date of study was significantly negatively related to effect size, indicating that there has been a

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<sup>47</sup> Asch, “Opinions,” 34: “At one extreme, about one quarter of the subjects were completely independent and never agreed with the erroneous judgments of the majority. At the other extreme, some individuals went with the majority nearly all the time.”

<sup>48</sup> “Twelve per cent of the Norwegian students conformed to the group on every one of the 16 critical trials, while only 1 per cent of the French conformed on every occasion. Forty-one per cent of the French students but only 25 per cent of the Norwegians displayed strong independence. And in every one of the five experiments performed in both countries the French showed themselves to be the more resistant to group pressure.” (Stanley Milgram, “Nationality and Conformity, *Scientific American* 205, 6 (1961). Retrieved July 3, 2016 <https://www.scientificamerican.com/article.cfm?id=milgram-nationality-conformity&print=true>.)

decline in the level of conformity.”<sup>49</sup> The section comparing national and national trans-national studies concluded that

the impact of the cultural variables was greater than any other, including those moderator variables such as majority size typically identified as being important factors. Cultural values, it would seem, are significant mediators of response in group pressure experiments.

Here again, what these (non-situationist) authors conclude to be the variable whose impact on task response was ‘greater than any other’ is allowed no significant role in the situationist re-interpretation of these same studies.

These are all reasons to think that the Asch Line Task studies do not provide the evidence needed to make Alfano’s thesis (*ES*) a strong generalization from social psychological experiments. We should for the same reasons of weak empirical support reject Alfano’s associated claims that “virtues identified by inquiry responsibility are not the sorts of traits that many people possess,” and that “rather than being *intellectually courageous*, people are at best *intellectually courageous unless faced with unanimous dissent of at least three other people*.” It appears that theoretical orientation deeply affects the interpretation that situationists like Alfano apply to the studies they cite and discuss. Add to this that the studies they cite are highly selective and often quite dated ones pulled from a much larger literature on biases and heuristics. Both points greatly diminish the support these studies can provide to the situationist’s generalizations about human behavior.

To digress for a moment, one point that critics have made against behaviorist and situationist methodology is that individual differences in personality or character-related effects routinely get ‘construed as noise’ and therefore deprived of due consideration.<sup>50</sup> Recognition of quite significant

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<sup>49</sup> Rod Bond and Peter Smith, “Culture and Conformity: A Meta-Analysis of Studies Using Asch’s Line Judgment Task,” *Psychological Bulletin* 119, 1 (1996): 111-137, 124-125, <http://psycnet.apa.org/?&fa=main.doiLanding&doi=10.1037/0033-2909.119.1.111>.

<sup>50</sup> John Kihlstrom argues that understood historically, it is because of what situationism inherits from behaviorism that situationists are predisposed to interpret social psychological studies largely in terms of behavioral reflexes upon a set human nature, or less strongly, in terms of social behavior varying as a function of features of the external environment. Kihlstrom observes that “In such research, the effects of individual differences in personality are generally construed as ‘noise.’ This view is captured by what might be called the *Doctrine of Situationism*: ‘Social behavior varies as a function of features of the external environment, particularly the social situation, that elicit behavior directly, or that communicate social expectations, demands, and incentives’.... Situationism has its obvious origins in stimulus-response behaviorism.” (John

differences in performance, whether attributable more to individual or to cultural character, threatens their conception of human nature as varying largely only as a function of features of the external environment. Alfano for his part calls it a bogeyman to identify situationists with a crude behavioristic model of conduct; he claims that it holds appropriate place for deliberation and sensitivity to reasons in the determination of conduct in an agent. But that Alfano ‘blinks’ over all matters related to the salience of cultural values in the explanation of differences in response among test subjects suggests otherwise. I argue that it clearly shows an inadequate acknowledgment of social milieu, and in this sense betrays their avowed interactionist, triadic relationship between agent, social milieu, and environment. To cross the line between social and cognitive psychology for a moment, we earlier discussed DPT as defending the reality and importance of individual differences (Section 2, above). But the role of cultural values in explaining the variability of responses is easily accommodated and indeed supported in DPT. As Manktelow summarizes in *Thinking and Reasoning*, studies affirm that the new mind is more heavily influenced by culture and formal education. In Stanovich’s terms, people can acquire new ‘mindware,’ and the mindware that people employ is influenced by their culture.

Concern with interpretations of social psychological experiments that ignore the impact of cultural values on task performance highlights the fact that the situationist generalization draws upon a base of mostly latitudinal or ‘single pass’ studies. The lessons that must be learned between psychology and philosophy, this should remind us, run both directions. Methodologies that purport to draw broad generalizations but are based mainly on single-pass heuristic task studies seem to me as open to critique as are studies of moral reasoning narrowly dependent upon intuition-pumping and ‘Trolley-ology,’ or traumatic, dilemma-focused tests. Philosophers and psychologists have both been at fault, and only working together will philosophers and psychologists better address the *Descriptive-Normative Gap problem* introduced at the start of this paper. But before discussing that problem directly in the final section, let me say more about virtue epistemologies themselves, and different forms of they take, since everyone agrees that the situationist challenge affects different forms of VE differently, and some more strongly than others.<sup>51</sup>

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F. Kihlstrom, “The Person-Situation Interaction,” in *Oxford Handbook of Social Cognition*, ed. Donal E. Carlston (Oxford: Oxford University Press, 2013), 2-3.)

<sup>51</sup> I am taking ‘credit theory’ broadly enough to include both Robust (RVE) and anti-Luck (ALVE) virtue epistemologies. Responsibilist and inquiry-focused VE cut across Jason Baehr’s distinction between autonomous and conservative VE; Inquiry-focused VE may still offer an

Robust, global character-traits and the responsibilist forms of VE that are most concerned with these ‘thick’ characterological and affective concepts are a natural first target of situationist critique. I think of the specific form of VE I support – inquiry-focused VE, or as I have sometimes also termed it, *zetetic* responsibilism in contrast with Zagzebski’s *phronomic* responsibilism – as champion of things *diachronic*. This means it supports and investigates both the backwards-looking concern with the etiology of particular belief, and forward-looking – let us call this *axiological* – concern with the need to reflect upon or improve one’s cognitive strategy and/or evidential situation and to fit one’s epistemic goals, etc.<sup>52</sup> The first is a primary matter for virtue reliabilists and any account of doxastic justification; the second is a concern for both reliabilists and responsibilists, but is not closely connected with epistemic assessment or the project of the analysis of knowledge.

There is a close if not perfect connection between philosophical concern with the diachronic as crucial to both ethical and epistemic normativity, and dissatisfaction with situationist social psychology as generalizing latitudinal studies. There is no dearth of longitudinal studies, but much of it exists over the gap between situationist and automaticity theory, on the one hand, and positive psychology on the other. Blaine Fowers and his colleagues for example try to operationalize Aristotelian virtue theory. It is not incidental to this that in his book *Psychology and Virtue*, Fowers argues that taking latitudinal studies as a basis for ‘judging timelessly’ is highly problematic. If humans don’t just encounter, but also help construct their environments, then situational and agential factors are not as easily sorted out as it might appear when we draw only from latitudinal studies.

If we are serious about exploring whether character strengths actually manifest in behavior, a very different approach to the research [than latitudinal studies take] is necessary. Investigators have to assess three essential components of a trait or character strength. First, there must be individual differences on the

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account of knowing even while re-envisioning epistemology in the Deweyan fashion of theory of inquiry. For opposing views on whether virtue epistemologies really build more empirical assumptions into their accounts than do other, more generic forms of reliabilist externalism see David Henderson and Terrance Horgan, “Epistemic Virtues and Cognitive Dispositions,” in *Debating Dispositions*, 296-319. Also Christian Nimtz, “Knowledge, Abilities, and ‘Because’-Clauses,” in *Knowledge, Virtue, and Action: Putting Epistemic Virtues to Work*, eds. Tim Henning and David P. Schweikard (London: Routledge, 2013).

<sup>52</sup> See Guy Axtell, “Recovering Responsibility,” *Logos & Episteme* II, 3 (2011): 429-454 for defense of the epistemic centrality of diachronic and not just synchronic evaluations, as internalist evidentialists insist.

characteristic. Second, evidence for consistency in trait-associated behaviors is needed across situations. Third, there must be consistency in trait-associated behavior over time.<sup>53</sup>

Connecting with Fowers second and third point, Jesse Prinz points out that “Factors external to a person can influence behavior in two different ways: synchronically or diachronically,” but that latitudinal studies largely capture only synchronic influence.<sup>54</sup> I find each of these distinctions especially pertinent to the prospects of tying philosophy and the social sciences closer together. For example, sociologist Gabriel Abend argues that if the contemporary science of morality focuses on situations or courses of action judged as ‘right,’ ‘okay,’ or ‘permissible,’ recorded through the push of a button, then it “is not a science of morality, but of thin morality only.” Much as social scientists are rightly skeptical of philosophical ethics presented as dilemma-cases and Trolley-problems, virtue theorists are skeptical of a long tradition in social psychology focused on a ‘thin’ conception of moral and cognitive reasoning.<sup>55</sup>

We can end this section with a passage from Prinz, who argues that the difference between synchronic and diachronic influence matters vitally, because the two forms of influence hold quite different theoretical lessons and implications:

If we were swayed only by synchronic factors, then all people would be the same: put two people in the same situation, and they will probably do the same thing. But, if diachronic influences are possible, then people can internalize social norms, and, as a result, people with different backgrounds will behave differently in the exact same situations. If all people behaved alike in the same situations, character based ethical theories would be in trouble: it would be impossible to *cultivate* character. At best, we could do what Doris recommends: try to put ourselves in situations that promote good behavior. But, if diachronic influence is possible, the cultivation of character *is* possible... Cultivating

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<sup>53</sup> Blaine Fowers, *Virtue and Psychology: Pursuing Excellence in Ordinary Practices* (Washington DC: American Psychological Association, 2005), 40.

<sup>54</sup> Jesse Prinz, “The Normativity Challenge: Why Empirically Real Traits Won’t Save Virtue Ethics,” *Journal of Ethics* 13 (2009): 117-144, 132.

<sup>55</sup> I have sometimes described my fellow virtue responsibilists as epistemological ‘thickies.’ Abend points out that “Unlike thin predicates, thick predicates have institutional and cultural preconditions or presuppositions ... [T]he moral concepts and properties expressed by those predicates – e.g., the concepts and properties of humanness, gentlemanliness, piousness – are partly constituted by institutional and cultural facts.” (Gabriel Abend, “Thick Concepts and the Moral Brain,” *Archive of European Sociology* LII (2011): 143-172.) For a thin-centered account, see Thomas Hurka, “Virtuous Act, Virtuous Disposition,” *Analysis* 66, 1 (2006): 69-76.

virtuous traits that do not get overwhelmed by synchronic situational variables may be difficult, but there is no reason to think it's impossible.<sup>56</sup>

#### 4. The Normative-Descriptive Gap and the Olin/Doris "Trade-off" Thesis

According to Olin and Doris in their "Vicious Minds" paper (2013), it is "insofar as reliability is a condition on epistemic virtue" that we have reason to doubt that human organisms possess such virtue. The unreliability of agents follows from lack of 'stable' dispositions, due to our enormous vulnerability to irrelevant context effects. In order to formalize their challenge to VE they present the following dilemma involving a forced trade-off:

[V]irtue epistemologists encounter a dilemma: they can either formulate their theories to successfully accommodate the empirical challenge and lose the normative appeal derived from virtue ethics, or retain the normative appeal derived from virtue ethics and fall prey to the empirical challenge.<sup>57</sup>

We can call this the *trade-off problem*, because it is based on a thesis about a forced option between maintaining normative appeal and empirical adequacy. An embedded assumption I want to focus on is the *trade-off thesis*:

pressures on theory building in virtue epistemology are hydraulic: increase empirical adequacy at the expense of normative appeal, or increase normative appeal at the expense of empirical adequacy.<sup>58</sup>

Olin and Doris argue that virtue epistemology seems skepticism-inviting, but notice first that if the challenge to agent-reliability affects externalist and internalist epistemologies both, it may be that their own view is the one that invites skepticism. At least they say nothing to indicate what conditions *would* set a reasonable bar so that knowledge is not fleetingly rare. It looks like our modes of belief production on the vicious mind thesis are neither safe nor sensitive, so an analysis of knowledge involving tracking conditions or other sorts of counterfactuals may not pass muster either.<sup>59</sup> But more charitably we can take their

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<sup>56</sup> Prinz, "The Normativity Challenge," 132.

<sup>57</sup> Lauren Olin and John Doris, "Vicious Minds," *Philosophical Studies* 168, 3 (2013): 665-692.

<sup>58</sup> Olin and Doris, "Vicious Minds," 32.

<sup>59</sup> It is hard to separate these issues of skepticism and anti-skepticism from concern with epistemic luck, which the authors do not mention; the distinction between Robust (RVE) an Anti-luck virtue epistemologies (ALVE) is quite as pertinent as the distinction between virtue reliabilists and responsibilists (and maybe more so, if the latter is largely a matter of emphasis and any VE must account for both knowledge-constitutive and auxiliary virtues). But luck isn't treated in Olin and Doris's paper. Since I am interested in virtue-theoretic responses to skepticism, I would argue for the advantages that allowing ALVE's independent anti-luck



concerns as focusing on credit theories, and more specifically on problems with an *aretaic* condition, including its best-known formulations in terms of a dispositional condition (Sosa) or an explanatory ‘because’ (Greco; Zagzebski).

Like Alfano, Olin and Doris do acknowledge my earlier comparison between the generality problem in epistemology and the situationist challenge to character-traits.<sup>60</sup> While they write that they “are sympathetic to the observation that the search for virtues and the search for reliable belief-forming process types may be partly coextensive,” they deny my argument that this attenuates the situationist challenge to the credit theory; they anyway find humans to be without many stable belief-forming process types. Since my claim of partial co-extension is granted but Olin and Doris do not comment on how I try to resolve this problem with a *Narrow-Broad Spectrum of Agency-Ascriptions* [Table 4], I will use this opportunity to provide a fuller development of how a properly modeled spectrum of agency-ascriptions assuages the concerns that Olin and Doris raise.

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condition has over RVE attempts to have a single *aretaic* condition serve to deal with both the value problem *and* the epistemic luck problem. In addition to this key advantage I have elsewhere argue for, ALVE affords us a substantially smaller ‘empirical footprint’ than RVE. I cannot here explain my ‘smaller empirical footprint of anti-luck VE relative to Robust VE’ claim, but see Jesper Kallestrup and Duncan Pritchard, “The Power, and Limitations, of Virtue Epistemology,” in *Powers and Capacities in Philosophy: The New Aristotelianism*, eds. Ruth Groff and John Greco (London: Routledge, 2012), 248-269 and “Robust Virtue Epistemology and Epistemic Anti-Individualism,” *Pacific Philosophical Quarterly* 93, 1 (2012): 84-103 on advantages of ALVE (sometimes called ‘Weak VE’) in accounting for veritic luck cases especially in regard to what they term *epistemic dependence*, and the implausibility of any version of VE that cannot account for it. Pritchard also recognizes a spectrum of weak and strong epistemic achievements, where in many instances one can meet the rubric for cognitive achievements pretty easily, while in other instances the agent must overcome a significant obstacle to cognitive success, or manifest high levels of cognitive skill. See Guy Axtell, “Felix Culpa: Luck in Ethics and Epistemology,” *Metaphilosophy* 34, 3 (2003): 331-352; and “Two for the Show: Anti-Luck and Virtue Epistemologies in Consonance,” *Synthese* 158, 3 (2007): 363-383, for my first forays into a version of ALVE, which I ironically proposed in responding to Pritchard’s early Robust Anti-luck epistemology (RAL), the position he took in this first book, *Epistemic Luck* (Oxford: Oxford University Press, 2005).

<sup>60</sup> Olin and Doris, “Vicious Minds,” note 16.

**Table 4: The Narrow – Broad Spectrum of Agency-Ascriptions<sup>61</sup>**

<i>Narrowly-typed Abilities (NTA)</i>	<i>Broadly-typed Abilities (BTA)</i>
<ul style="list-style-type: none"> <li>- <i>Low-level virtues (faculty virtues).</i> Dispositions construed as genetically-endowed abilities or cognitive capacities.</li> <li>- Best suited to evaluating the etiology of a single belief or narrow range of beliefs;</li> <li>- Their ascription is often keyed to doxastic justification of particular beliefs actually held by an agent.</li> <li>- Their ascription answers to the <i>Generality Problem</i> by fixing the “narrowest, content-neutral process that is operative in belief production” for an <i>actually held</i> belief.<sup>62</sup></li> <li>- The value of low-level virtues is transmitted directly to their products and only indirectly to the agents who have them.</li> </ul>	<ul style="list-style-type: none"> <li>- <i>High-level virtues (reflective virtues).</i> Best suited to tell about the agent’s abilities and practices in a certain domain/area.</li> <li>- Best suited to holistic evaluation of agents, including the quality of their activities of inquiry.</li> <li>- Their ascription is not primarily to doxastic justification of particular beliefs. Their ascription is not to the ideology of ‘processes,’ but to the axiology of inquiry or ‘ideal-types.’</li> <li>- Their ascription is primarily occurrent, describing personal habits or counter-factual states of motivation an agent who performs a certain act-type in the given situation (and ethically or intellectually virtuous agent) <i>would</i> have.</li> <li>- The value of high-level virtues attaches directly to their possessor but only tenuously to their products.</li> </ul>

To develop the role of this *N-B Spectrum* in responding to the dilemma, I first want to distinguish between two senses of the trade-off thesis that drives Olin and Doris’ dilemma, replying to each sense in turn. The *formal sense* of the trade-off thesis indicates a *general* trade-off between pursuing normative assessment and pursuing descriptive adequacy. The *substantive sense* makes as I understand it a stronger and more directed claim: Proponents of an *aretaic* or person-level ability

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<sup>61</sup> See also Lepock “Unifying the Intellectual Virtues,” from which my present chart and that of Axtell, “Character Trait Ascriptions,” draws many key points. Thanks to Christopher for discussion of his distinction and chart.

<sup>62</sup> Alvin I. Goldman, *Epistemology and Cognition* (Cambridge: Harvard University Press, 1988), 363.

condition face an especially difficult or dire version of this problem (relative to other (unspecified) potentially successful anti-skeptical epistemologies). They force this problem because whenever an *aretaic* condition is formulated so as to be empirically adequate (psychologically realizable) it will turn out to lack normative appeal, and whenever such a condition is formulated to have strong normative appeal, it will turn out to be empirically inadequate (psychologically unrealizable).

The *formal sense* of the trade-off thesis is a general warning about conflating explanatory and normative posits; if this is correct, it is largely a matter of logic. In response to this *formal sense* of the ‘trade-off’ problem, the *Narrow-Broad Spectrum* distinguishes different ways of ascribing epistemic agency to people. This *formal sense* makes no great worry for normative epistemologies because it is already acknowledged by the distinctions that the spectrum uses to avoid confluences that otherwise occur. Allowing that agency ascriptions serve a *variety of purposes*, as our spectrum does, means that what has the most empirical content *need not* have much normative appeal, and what has the most normative appeal *need not* have much empirical skin in the game.

The *formal sense* of the trade-off thesis locates it on the familiar grounds of the *normative-descriptive gap*. In so saying, however, familiar resources for responding also come to mind. The dilemma reflects the much-discussed and troublesome relationship between the normative appeal of unbounded rationality, with standards that ignore time, information, and computation of agents, and bounded rationality, where the scientific image, the real world, rushes back in. That we will be forced to judge humans as broadly irrational if we judge rationality by an ‘Enlightenment picture’ of unbounded agency when this is untrue of our actual way of being in the world, has been a common argument in the great rationality debate.<sup>63</sup> This is a rubbing point between N-theories and ecological rationality. But virtue epistemologies are not committed to any particular view on these broad issues. For them the *formal sense* of our dilemma just seems to be this well-known problem, re-directed towards conditions on knowledge rather than on rationality. There always is and needs to be a contrast of performance with competence, but standards of competence that arise entirely independently of psychology from ideals of pure logic or ideal agency, may lead us to doubt human competence universally.

Responding to the *substantive sense* of the ‘trade-off’ thesis is where our real work lies. Here there is more than a general warning, but a real risk of ‘costs,’

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<sup>63</sup> See David Matheson, “Bounded Rationality, Epistemic Externalism and the Enlightenment Picture of Cognitive Virtue,” in *Contemporary Debates in Cognitive Science*, ed. Robert J. Stainton (Malden: Blackwell, 2006), 134-144.

in the present case to a credit theory of knowing. If we cannot say how and why *this theory* can avoid such conflation, or explain what legitimate epistemic concerns broadly-typed reflective virtues serve in an analysis of knowledge except to be causal – explanatory posits, then the theory looks to be in trouble. This requires a more detailed exposition of our *spectrum*. Responding to the substantive sense of the trade-off thesis requires making several further distinctions, including especially that between epistemological concerns with the *etiology* of belief (also called doxastic justification or *ex post* justification), on the one hand, and epistemological *axiology* together with norms of agential rationality/responsibility on the other.

At the Narrow end of the spectrum lie ascriptions of particular mental faculties and strategies, and at the Broad end lie more ‘occurrent’ ascriptions associated with agency under normal or ideal circumstances. It is only NT traits that directly address the generality problem, and hence doxastic justification, the core question of an account of knowing on all but purely internalist epistemologies.<sup>64</sup> This point basically follows from the normal reliabilist line on the generality problem, which is that the pertinent process-type to try to specify for doxastic justification is the “narrowest, content-neutral process that is operative in belief production.”<sup>65</sup> NT traits are best ascribed to a particular belief of an agent, to reconstruct its reliable etiology in a way that excludes all but modally remote error-possibilities. Agency ascriptions serving this etiological function, we can see, simply don’t require much normative ‘appeal,’ at least on the fairly minimal account of credit we discussed in connection with DPT in section 2.

On the other hand, the Broad end of the spectrum is directly concerned with praise; it is high praise, but does not in the same way entail epistemic credit, since there are plenty of ways to be personally justified (to be both synchronically rational as the evidentialist demands, and diachronically rational in our zetetic activities as the virtues would guide us to be), yet still come out with a false belief, or with a true belief not related in the *right way* to the agent’s ability, as in Gettier cases. Thus, if by attacking the ‘empirical adequacy’ of BT attributions Olin and Doris are assuming that such attributions always imply some robust disposition, this is simply mistaken. BT (broadly-typed) virtues are typically ascribed in assessment of an agent’s actions-at-inquiry – what I call *zetetic* activities – rather than in order to credit an agent for coming to have a *particular* a non-luckily true

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<sup>64</sup> I do agree with some criticisms of a methodological individualist conception of knowledge, and I take VE to have strong overlaps with social epistemologists.

<sup>65</sup> See Goldman, *Epistemology and Cognition*, 363.

belief.<sup>66</sup> The ‘normative appeal’ of agency ascriptions and descriptions of the BT kind, I will need to argue, does not require them to have much empirical exposure. Since broad reflective virtues do not consist in a single neurological state of a person, that person’s behavior may be our best or only overt reason for ascribing such a dispositional property to them. The personal praise for broadly-typed virtues can be dispositional or occurrent. Occurrent attributions associate an agent with actions a virtuous or vicious agent *would* perform, or with motives they *would* have. We can call them occurrent because these kinds of counterfactuals demand only conformity with norms, and on the present view, are substantially weaker than causal-explanatory attributions.

Here we bump up against one of the major differences between ‘inquiry-focused’ VE and ‘classical’ responsibilism. I agree entirely with Olin and Doris’ point that ‘mixed’ accounts need to be careful what reliability and responsibility conditions are accepted and how they are framed. Inquiry-focused VE argues that intellectual virtues thought of as character-traits make us good at inquiry, but they contribute to a formal account of knowledge only in indirect ways. Hookway rightly notes that “Virtues regulate inquiries and deliberations, and only indirectly regulate beliefs.”<sup>67</sup> Since habits of mind acknowledged as intellectual virtues are rather abstract and complex traits, they accordingly have “a broad variety of possible manifestations in the intellectual activities.”<sup>68</sup> The motivations of reflectively virtuous inquirers normally do not regularly predict anything very specific by way of beliefs or activities.

It is clear that occurrent attributions needn’t be explanatory in the way that dispositional ones are, that the normativity of epistemic assessment and doxastic guidance differ substantially, and that the third-personal concerns with the etiology of belief (that the project of analysis requires) should be clearly distinguished from the first-personal concerns of the inquirer, which norm to what her epistemic community identifies and values as theoretical and/or personal virtues. What is less well-recognized is that virtue theories in ethics and epistemology can easily accommodate a narrow/broad, or causal-explanatory/normative spectrum of agency ascriptions, where posits at the

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<sup>66</sup> Alfano, *Character as Moral Fiction*, 171, allows responsibilisms that “stand as a purely normative theory” without ‘explanatory-cum-evaluative’ ambitions. But this is in tension with claims he also makes that even Autonomous VE as Baehr defines it has conditions of realizability for virtues that it cannot meet. This may be a problem of semantics over what is designated by ‘character-traits.’

<sup>67</sup> Christopher Hookway “How to be a Virtue Epistemologist,” in *Intellectual Virtue*, eds. Michael DePaul and Linda Zagzebski (Oxford: Oxford University Press, 2003), 183-202, 197.

<sup>68</sup> Elke Brendel, “Function of Virtuous Dispositions,” 330.

different ends of the spectrum are recognized as serving substantially different albeit equally legitimate explanatory and evaluative functions.

Given this, it also follows that we should carefully distinguish not only dispositional from occurrent attribution, but overlapping with it, epistemic credit from praise. The Narrow end of our spectrum is concerned with epistemic credit, but not necessarily praise, because it may not be fitting to praise or blame someone for faculty virtues or 'automatic' responses, however successfully employed. Thus, if by 'normative appeal' Olin and Doris mean praise and censure, then its absence in NT ascriptions on the present account comes at no real 'expense.'

In most cases the concerns with doxastic responsibility and other aspects of BT virtues should be carried on apart from the project of analysis of knowledge. This is the general lesson of the failure of internalist evidentialism, and of intellectualist conceptions of mind, more generally.<sup>69</sup> Doxastic responsibility, like related concepts of rationality and personal justification, is taken as a generally necessary condition on knowledge only by more internalistically-oriented analyses. If one is going this route, the condition in question should be expressed negatively and occurrently, in the sense that meeting the condition merely means that the condition is met if we need *not* attribute to the agent motivations that an intellectually virtuous agent *would not* have, or actions or omissions that a virtuous agent *would not* perform or omit. Negative conditions on knowing (the agent's motivations were not vicious or her actions and omissions were not irresponsible, for instance) obviously are judged in the way occurrent ascriptions are, not by actual global-trait manifestation). And, of course, the more externalist versions of VE are still more cautious about a right motivational condition on knowledge. The focus for reliabilist VE is doxastic justification, which is what the generality problem relates to. For externalists the broad end of the spectrum just is not 'truth-linked' in the way that doxastic justification is.<sup>70</sup>

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<sup>69</sup> See Axtell, "Recovering Responsibility."

<sup>70</sup> That responsibility conditions can easily be included in a formal analysis as *negative* rather than *positive* conditions is something overlooked when 'mixed' epistemology is treated as the epistemic situationist do, as always just adding another contentious generally necessary condition on knowing. Knowledge-attributions arguably range from animal ('brute'/externalist) to reflective (high-end/internalist) cognition. The beauty of negative conditions is that they allow sufficiency on knowledge in a plurality ways, and that they therefore fit with 'range concepts.' This is why situationism challenges Zagzebski's RVE more than ALVE. Since what classical responsibilists really care about is conditions on 'high-end' or specifically *reflective* knowledge, this is better put in a negative way of saying that the agent is 'not ill-motivated' or that her efforts at inquiry and evidence-gathering were 'not irresponsible,' etc., than by a general necessary condition on knowledge. My account thus accords with and adds support to

Some proponents of VE like Zagzebski who view the relationship between epistemology and ethics to be tighter than I do, may disagree. For those who try to reduce epistemic to ethical evaluation, or to treat personal responsibility as equivalent to doxastic justification, I reiterate the demand for a more general separation between the theory of knowledge and accounts of personal justification (synchronic and diachronic rationality).<sup>71</sup> We need to avoid the confusion of treating traits and states at the Broad end of the spectrum as doing the work of positive conditions on doxastic justification or knowledge, whose place is really with the generality problem and at the Narrow end. Critics of ‘classical responsibilism’ are probably right that trying to model epistemological normativity on ethical normativity (the neo-Aristotelian approach) contributes to these conflations.<sup>72</sup>

Our distinction between the formal and substantive senses in which the trade-off thesis can be construed has directly informed our response to Olin and Doris’ dilemma for VE. If theory construction and VE is ‘hydraulic,’ as they contend, then is it any *more* so than for other philosophical analyses of knowledge, and if so, why? Even granting that it is more so and there is a substantive worry about virtue epistemologies in particular, it surely is unfair not to allow virtue epistemologists the fluidity and flexibility of a spectrum of agency ascriptions in order to clarify the specific functions and levels of empirical exposure presupposed in different kinds of agency ascriptions. When we do, I

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Kallestrup and Pritchard’s, which argues that ALVE fairs better on several dimensions, including empirical adequacy concerns, than does RVE.

<sup>71</sup> So consistent with my argument in “Recovering Responsibility,” that evidentialists like Feldman should accept the ‘separation,’ ‘divorce,’ or ‘two project’ proposal (that R. Foley and Anthony Booth persuasively argue for), I here place much the same demand upon *phronomic* virtue responsibilism. This result favors my more moderate stance of *zetetic* or inquiry-focused VE, which holds that reflective virtues are things that make us good at inquiry, and sometimes part of a rational reconstruction of belief acquisition or maintenance, but not for that reason a necessary condition on knowing.

<sup>72</sup> While I think avoiding these conflations is best addressed by inquiry-focused forms of VE, our account still agrees with Peter Samuelson and Ian Church when they write, “Presumably, any robust, full account of intellectual virtue will have to account for both cognitive faculty-virtues as well as character trait-virtues; whether one does this along agent-reliabilist lines or neo-Aristotelian lines could be, to some extent, a matter of emphasis. For a person can hold a belief more strongly (or weakly) than warranted due to biases inherent in one’s cognitive systems, or due to some lack of character, just as a person can exhibit virtuous knowing via the proper functioning of one’s cognitive system or through the exercise of a virtuous character.” (Peter Samuelson and Ian Church, “When Cognition Turns Vicious: Heuristics and Biases in Light of Virtue Epistemology,” *Philosophical Psychology* 28, 8 (2014): 1095-1113.)

believe that VE has advantages over other epistemologies in helping us address the *Normative-Descriptive Gap* problem, which is just what philosophers and psychologists working together should want.

A continuum or spectrum of agency-ascriptions helps to clarify what normative and explanatory concerns we have with different cases and different kinds of agency. But nothing we have said about agency ascriptions as they relate to knowledge possession implies the unreality of global and robust reflective virtues, or the idea that they are purely descriptive and never part of salient explanations for why we know. The reality of BT character – traits needn't be called into question by acknowledging the spectrum's range covering both dispositional and occurrent attributions. Being responsible is a great way to achieve epistemic goods like true belief, knowledge, and understanding. Indeed, without a lot of luck, this may be my only way, or at least my best shot at it. And the habits of responsible inquiry that I display today in coming to hold a true belief will, when an assessor retrospects on it tomorrow, be part of that belief's reconstructed etiology. But these contributions of responsibility to knowing still should not lead us to confuse etiology and axiology, or to think of personal justification (synchronic or diachronic) as guaranteeing these epistemic goods. Believing truly rather than falsely does not follow from my having unquestionable motives and giving my best cognitive effort. That is why Zagzebski's "because" condition is too strong, and why conforming to norms of motivation that a virtuous agent would have, or performing the inquiries a virtuous agent would perform, is generally sufficient to meet Broad-end norms associated with epistemic responsibility.

To conclude, these concerns with the formal and substantive senses of the 'trade-off' thesis are serious ones for virtue epistemologists, Olin and Doris are right to contend. But tying back to Section 2, DPT on my view also has the philosophical implication of supporting both the reality and value of global reflective virtues, moderating what can be claimed on empirical grounds about the modularity, or localness of character-traits, and the lack of robustness of traits of intellectual character. From a normative perspective, optimizing coordination of T1 and T2 within our natural limits is of crucial philosophical and pedagogical concern, especially since the *parallel* nature of T1 and T2 means they not only cooperate, but also both routinely operate at the same time and quite often compete in determining an agent's cognitive or ethical judgment.<sup>73</sup> These latter

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<sup>73</sup> Compare Lisa Grover's argument that "We should accept the psychological reality of narrow, localized character traits, while retaining the thick evaluative discourse required by virtue ethics....Thick global concepts are necessary for a theory of localized character traits and



facts about how we process make the metacognitive prowess that comes with acquiring rational thinking dispositions *more* necessary and more efficacious than they appear to be on either situationist or automaticity ('System 1') theory. Habituating ourselves to rational thinking dispositions remains perhaps the most powerful tool within our adaptive toolbox.<sup>74</sup>

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situation management to make sense. Without evaluative integration of different local traits under thick evaluative concepts we cannot identify which local traits to develop, and which situations to seek out, or avoid." (Lisa Grover, "The Evaluative Integration of Local Character Traits," *Journal of Value Inquiry* 46 (2012): 25-37, 36.

<sup>74</sup> Thanks to Mark Alfano, J. Adam Carter, Abrol Fairweather, Lauren Olin, John Doris, Anthony Booth, John Kihlstrom, Christopher Lepock, Christian Miller, and Holly Smith for comments and discussion. Lauren in particular provided a thoughtful and detailed set of comments on an early draft.