

Adam Morton

Bounded Thinking: Intellectual Virtues for Limited Agents.

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In *Bounding Thinking*, Morton emphasizes how our virtue-based vocabulary and evaluation practices recognize, engage, and work with our cognitive limitations. I find this general aim insightful and needed. We need a healthy dose of epistemic realism (or perhaps even pessimism) to avoid excessively idealized accounts of our cognition. In this way, I think this book can help to analyze how *real* epistemic agents actually cognize and deal with what sorts of difficulties people encounter by thinking in messy, less-than-ideal ways. The book describes cognitive agents where they actually “live” instead of presuming that all thinking—or even *good* thinking—must conform to idealized, abstract norms and procedures.

Chapter One sets out the platitude guiding the book. We are cognitively limited agents; that is, our intellectual powers can often be dim and prone to all sorts of mistakes. Morton’s first important move is to accept this limitation thesis; using it to guide his overall approach to epistemic virtues. In particular, he wants to analyze and emphasize what he calls virtues of “limitation-management”. What limitations we have, how they work, and how we might deal with them turn, to a large extent, on the particular environment in which an agent finds herself. Morton refers to this sort of environment sensitivity as ‘externalism’ and it guides much of his arguments throughout the book. Following the limitation thesis is what Morton calls the “approximation fallacy” whereby we assume that a non-ideal, limited agent should approximate the cognition of an ideal, non-limited agent as closely as possible. We can view formal theories of reasoning as variants on a theme of idealized, normative theories of rationality—what Morton refers to as “N-theories.” The approximation fallacy would falsely require that good thinking conform as closely as possible to some N-theory or set of N-theories. Instead, our thinking should achieve success in our environment, recalling the sensitivity-based externalism earlier endorsed, without necessarily requiring following some N-theory. Morton takes as his normative basis of thought not a formalized N-theory but what he calls “conventional norms of advice”: i.e. our general practice of normatively evaluating the thoughts of others (10). Success or accomplishment draws these threads together: we have success when we achieve what we set as an aim but this rarely follows that hard and fast rules of N-theories in favor of a sensitivity to one’s environment embedded in the normative task of giving and receiving advice. Thus, “[v]irtue is what one has when one is capable of responding to the situation, one’s own state, and the relation between them, to accomplish something that one values” (25).

Chapter Two focuses on the environment sensitivity in Morton’s externalism. His view of knowledge as intrinsically normative and as a kind of cognitive success allows us to evaluate the processes leading to it. These success-based processes may be “linked sensitivities” such that I can achieve something *because* of my knowledge or have some knowledge *because* of some further accomplishment (e.g. running a successful experiment). Our advice or encouragement can function as a way to promote these kinds of successes. We praise people in various ways for accomplishing a task and achieving knowledge—our norms of advice follow our desire to see these sorts of accomplishments work out. Thus, our guiding norms come about as a result of what we want from others (via successes) and how others might succeed in particular circumstances; displaying

externalist sensitivity. Morton emphasizes threshold setting as a kind of environment sensitivity. How long must one look at traffic before deciding to pull out into it? How long must one ponder a problem before recognizing that a solution is not forthcoming and the procedure counterproductive? We set thresholds to minimize likely non-successful thinking or actions, and we do this setting with an eye towards being sensitive to our environment. Through setting thresholds, we can attend to the limitations of cognitive resources when properly attuned to one's environment. This is the center of his externalism.

Chapter Three begins the analysis of and focus upon the virtue element of Morton's theory. He claims that a "virtue is a special kind of capacity to get things done" (59). As a kind of success-indexed capacity, we see environment centered externalism playing a crucial role. In addition, Morton sees two other essential aspects to epistemic virtues: we can learn them and we use them to evaluate (thinking). Chapter Three focuses on analyzing and connecting these three key "sides" to virtue. We connect learnability and evaluation easily: in coming to learn how to think well, we will take advice from a person by evaluating what we have done, should (not) have done, should (not) do, etc. And, often, the appropriate advice or evaluation takes the agent's context into account in guiding/assessing that person's thinking. Similar considerations apply to evaluations: we use them to guide how others (learn to) think in ways sensitive to their environment. Virtues are central to the evaluations we give to and receive from others and these are sensitivity-based capacities learned over time and through others' evaluations of our thinking aimed at cognitive successes.

Given this analysis of virtues in general, Morton begins the case for his virtues of "limitation-management" in Chapter Four. It begins with a paradox: whether we will succeed in some way depends on what we know, and we tend to be ignorant of what we know now or will know in the future; yet we still think we are reasonably successful. Even worse, it is quite difficult to know just how difficult some piece of knowledge is to obtain—we tend to estimate a likely success despite being mistaken or ignorant of just how difficult that success is to pull off. We are limited in all sorts of ways: our cognitive errors, the complexity of (cognitive) successes, and our ignorance of just how difficult success may be. In the face of multi-faceted human limitation, Morton argues that particular sets of epistemic virtues work to deal with these limits and succeed *because* of them (rather than in *spite* of them). From Chapter Three, virtues are understood as success-aimed capacities sensitive to environment. If cognitive limitations set one's environment, then it follows that we'll have some success-aimed capacities sensitive to them. These are Morton's virtues of limitation-management. He calls them "possibilist" virtues: they deal with unexpected problems of limitations, how to navigate difficulties that pop up, how to respond to unforeseen possibilities arising from such difficulties, and so forth. In short, these are the capacities that allow us to succeed even when we are misguided about just how difficult success will be. Rather than virtues of problem-management, possibilist virtues take over when the problems one anticipates turn out to be more difficult or intractable than one imagines.

Chapter Five concerns how certain dilemmas impact how we analyze the use and evaluation of virtues. He calls a dilemma a "Pascalian" one when a person has equally plausible advice suggesting incompatible courses of action. In such cases, he argues that the proper evaluation should account for the person's particular set of virtues. In these cases, we cannot give one single best course of action for all agents, but we must index our advice to account for what virtues the agent has and what sort of thinking she can sustain in her particular circumstances and how that thinking can lead to her success. So, how we advocate the expression of virtues should be relative

to what virtues an agent has or could/should have as well as her environment, success-capacities, sensitivities, and so forth.

Finally, Morton uses Chapter Six to dismantle what he thinks are the hopelessly ambiguous (at least in typical philosophical discourse) notions of intelligence and rationality. Rather than helpful philosophical concepts, Morton finds them “unhelpful and in fact misleading” about how we think and how we analyze our thinking (138). We can think in all sorts of bad ways. There are all sorts of separate and distinct ways of being irrational. Thus, there is no univocal sense of being rational because there is no uniform sense of being *irrational*. People are rational in sundry ways that have no unification higher up the line. We are better served by evaluations using “thick” concepts from our virtue lexicon rather than the ambiguous “rational” tag. Similarly, when we think of our cognitive processes and functioning, we find bundles of operations and faculties without some overarching ‘intelligence’ unifying them all into what makes one cognitively well-functioning in any single, unified manner. Our “norms of advice-giving” function better in terms of virtues or capacities of successful thinking than either ambiguous rationality/intelligence or overly-idealized, rule-based N-theories.

Ultimately, I find myself sympathetic to his approach but less sympathetic to some of the specific core theses. I am unsure just why we should call “capacities to get things done” virtues. Not all capacities to get things done would seem to deserve the honorific ‘virtue’. Serial murders get things done via their serial-killing skills and victims in evil demon worlds may believe the truth reliably in all sorts of intellectually vicious ways. Rather, it seems that if virtues are capacities in this manner, they must be *certain* capacities to get *certain* things done *in certain ways*.

At the end, I find the book helpful in turning epistemology towards the messy intricacies of real and less-than-ideal thought. Classically, virtues pick out the excellence of a thing. And I think Morton’s book does just that: it works towards an account of the excellent thinking of a being whose cognition is far from ideal. *Our* virtues then should accept these limitations while, at the same time, not losing track of ways that our thinking can be excellent even if bounded. For these reasons alone, *Bounded Thinking* is an excellent book for those with an interest in epistemology, cognitive science, formal reasoning, or thinking in general.

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