



# Curiosity, Checking, and Knowing: a Virtue-Theoretical Perspective

Nenad Miscevic<sup>1</sup>

Received: 19 July 2022 / Accepted: 30 November 2022 / Published online: 25 January 2023  
© The Author(s) 2023

## Abstract

In his important and original book, *Knowing and Checking*, Guido Melchior provides advice on how to tackle skepticism. I argue that his analysis points to a possible virtue-theoretic answer to skepticism, which I call the *restraint solution*, i.e., activate your self-trust and restrain your inquisitiveness! It leads one to the ideal of bounded reflective curiosity: when it comes to knowledge, we should restrain our second-order, reflective curiosity and stay content with the somewhat Moorean trust in ordinary everyday beliefs. We can preserve our ordinary, first-order vigilance and investigative interest (curiosity) without falling into skeptical over-caution which is basically a reflective, second-order vicious attitude.

**Keywords** Checking · Virtue epistemology · Curiosity

## 1 Introduction

I am happy to discuss here Guido Melchior's *Knowing and Checking: An Epistemological Investigation* (2019). Due to its richness and originality, I have learned a lot from it. (I will be calling the author "Guido" as I always do.)

Although checking is highly relevant to epistemology, it has not been addressed much in literature before Guido's book. Therefore, he made a significant contribution with this work. Congratulations, Guido!

Given the quality of the work, I will not be questioning its main claims but go along with it and try to place it within the general perspective I prefer, namely virtue epistemology. The two approaches relevant for the work are the following: (1) the general interest in epistemic rationality (what is the rational way in facing epistemic uncertainty?) and (2) a more particular interest in virtue epistemology.

---

✉ Nenad Miscevic  
vismiscevic@ceu.edu

<sup>1</sup> Faculty of Arts, University of Maribor, Univerza V Mariboru Filozofska Fakulteta, Maribor, Slovenia

The book views skepticism as the result of wrong-headed and excessive inquisitiveness. In discussing it, I will stay within the classical Aristotelian framework of virtue, which considers it the middle between extremes, and argue that redirecting and restraining inquisitiveness is the road to virtue.<sup>1</sup> Thus, what follows will be dedicated both to the book and to the possibilities of re-interpretation and further development of its main claims. Section two summarizes some of Guido's results in general and in the context of the skeptical problem. Section three applies virtue epistemology to the issues in question. Guido points in fact to a possible virtue-theoretic answer to skepticism, that I call the *restraint solution*, i.e., activate your self-trust and restrain your inquisitiveness! The concluding Section four summarizes the main ideal of the approach, which I call the ideal of bounded reflective curiosity.

## 2 Summary of Some of the Book's Main Ideas

Let us start with the title. The book introduces a contrast between knowledge and checking. We often know without checking and in epistemology the high demands for checking often block or destroy knowledge. And here is my first question for the author: Guido, do you accept this reading of the title?

So, the central topic is checking. Remember Doubting Thomas (ἄπιστος Θωμᾶς) from the Bible, the paradigmatic cognizer obsessed with the task of checking: he cannot believe in the miracle and demands to check. (John 20:19–29). How should we judge his demand? When should he check, why, and what for?

Guido tells us little, almost nothing, about the general context of checking. It is natural to assume that subject *S* would rationally turn to check whether *p* typically when she is curious about *p*, and she is prone to investigate a presumption in favor of *p* being true. Motivation for checking (double checking, triple checking) is thus part of the normal inquisitiveness, motivation to find out.<sup>2</sup> What is the right context for checking? Guido talks primarily about reasoning in the book. Thus, let me assume that reasoning is the primary locus of checking (I can check by observation, but I must decide to do it, and this will come from reasoning). We can place the relevant reasoning in the *zetetic* field (e.g., Friedman, 2020). Here is Guido's central proposal: checking rationally involves sensitivity. He formulates it as "the Sensitivity Account of Checking, SAC."

Successfully checking that a proposition *p* is true is characterized as follows:

*S checked that p was true via method M* iff

- (1) *S* intentionally used *M* for determining whether *p* is true.
- (2) *M* has certain modal features with respect to *p* (especially sensitivity).
- (3) *M* accurately indicated that *p*. (Melchior, 2019: 5)

<sup>1</sup> Here, I use the findings of my book *Curiosity as an Epistemic Virtue* (2020) and apply them to the discussed topic.

<sup>2</sup> See also Jane Friedman (2019).

Next, come connections with people's expectations concerning knowledge. The main proposal here is that the context of checking introduces a very high demand on conditions of knowledge: if your method is not sensitive you cannot arrive at knowledge. This is summarized in the following principle, KSAC:

In contexts of checking, when we raise the question whether  $p$  (or an alternative  $q$ ) is true and deliberate about methods for settling this question, we tend to think that we do not know that  $p$  via strongly insensitive methods, especially not via monotonous methods. In other contexts, this tendency does not apply. (Ibid.: 142)<sup>3</sup>

In other words, in the non-checking contexts, we are ready to ascribe knowledge to the subject who has not used sensitive methods, and they ground our normal ascriptions of knowledge (I accept I have knowledge that my liver is healthy although I might have some statistically super rare and hard-to-detect liver disease that I have no evidence of). When I turn to check, I start raising questions about the sensitivity of my methods (if I had a liver disease, would I have any evidence of it?). And I begin to rationally doubt my convictions. In short, too much checking blocks our normal knowledge.

My second question for Guido: is this your general diagnosis of the typical checking context? If it is, it looks that your general picture of checking, which I find attractive, assumes the following:

The guiding idea [...] is that in some contexts of checking, e.g., when raising the question whether  $p$  is true and when deliberating about methods for settling this question, we *think* that we do not know that  $p$  via insensitive methods, i.e., via methods that fail to be checking methods. (Ibid.: 6–7)

Then, in this context, we assume that it is rational to check whether  $p$ , in order to find out whether  $p$ . What does this tell us about the relationship between checking and knowledge? Can they be separated as sharply as you would like to? This brings us close to what you call *type-2 moderate invariantism* which claims that.

[c]onsulting a sensitive method for  $o$  and not *dll* being true is not necessary for knowing that  $o$ . (Ibid.: 172)

To paraphrase the Gospel referring to Doubting Thomas: "Blessed are they that have not checked and yet have believed." The entire Chapter 3 is devoted to a detailed explication of SAC and KSAC. The main claim sounds simple: too much

<sup>3</sup> Here is the further specification:

KSAC has to be understood as the conjunction of the following three tendencies:

- (1) In contexts where  $S_1$  raises the question whether  $p$  is true and deliberates about methods for settling this question,  $S_1$  thinks she does not know that  $p$  via strongly insensitive methods.
- (2) In contexts where  $S_1$  raises the question whether  $p$  is true and deliberates about methods for settling this question,  $S_1$  thinks that  $S_2$  does not know that  $p$  via strongly insensitive methods.
- (3) In contexts where  $S_1$  thinks that  $S_2$  raises the question whether  $p$  is true and that  $S_2$  deliberates about methods for settling this question,  $S_1$  thinks that  $S_2$  does not know that  $p$  via strongly insensitive methods. (Melchior, 2019: 143).

checking blocks our (normal) knowledge. Certainly, it is far from being simple but let us look at the Zebra case. Do you need to check the zebra exhibit to recognize that these are zebras? No! Otherwise, you would never come to know. Restrictions on checking as well as separation of knowledge and checking normally save the day. Guido praises the moderate invariantist:

Consulting a checking method is necessary neither for knowing that in the pen is a zebra nor for knowing that in the pen is not a painted mule. S's observation plus background knowledge is not a method for checking that there is not a painted mule although it is a method for checking that there is a zebra. In checking contexts when we raise the question whether there is not a painted mule in the pen and deliberate about methods for settling this question, we falsely think S does not know that the animal is not a painted mule because we falsely think that knowing requires having consulted a checking method. (Ibid.: 172)

Here is another quotation:

[C]ontextualism and SSI defend the view that, in some contexts (when not considering the possibility of  $d/l$ ), knowing that  $\neg d/\neg l$  and knowing that  $o$  do not require a sensitive method, but in other contexts (when considering the possibility of  $d/l$ ), they do. I think that KSAC can actually explain closure puzzles. However, I do not want to take a position about whether the verb 'knowing' really behaves the way contextualists suggest. Therefore, I want to remain neutral about whether contextualism or invariantism is true. (Ibid.:178) (The text has  $d$  for cases of deception and  $l$  for lottery cases.)

However, it does face a problem. Look at the piece of news from Gaza City, Gaza Strip, Oct. 9, 2009:

The Marah Land Zoo's only two zebras died of hunger earlier this year when they were neglected during the Israel-Hamas war.

— Zookeepers in Gaza have found a creative way of drawing crowds to their dilapidated zoo. They have been painting their donkeys to make them look like zebras. (Thanks to Danilo Šuster for telling me about this newspaper story.)

Here Doubting Thomas seems more rational: unless you have checked, you do not know whether you are dealing with zebras or with donkeys. Thus, a third question for Guido is in order: would you stay with undemanding contextualist, or would you join Doubting Thomas?

Back to the book's main line of inquiry, i.e., the road from checking to knowledge or away from it. A central issue in the book is skepticism: digging too deeply will turn you into a skeptic. I would put it as a problem of uncontrolled reflective curiosity, of overdone zetetic work. Guido rightly places the issues of skepticism within the context of self-reflection. Here the skeptically-minded inquirer digs too deeply and at a wrong place, thus producing a catastrophe. This brings us to the book's central and concluding chapter which tackles the question that arises

in discussing skepticism and bootstrapping: in what sense does the wish to check to go too far, thus blocking knowledge?

In the process of checking, the target belief is completely isolated from the context and judged *in abstracto*; no wonder this leads to desperate bootstrapping and blocking of knowledge. (Cognitive scientists would say that the process looks like decoupling, i.e., separating beliefs from the context that generated them. The problems are then simply problems with such decoupling: too much and in the wrong places.) Therefore, the subject should activate her self-trust, restrain her zetetic, inquisitive curiosity, and thus avoid the skeptical threat. Checking contrasts with ordinary self-reflection, which does not go as far in reflective curiosity as checking does.

The process of checking whether one's own beliefs are true differs concerning its internalist features from ordinary self-reflection. In the case of ordinary self-reflection, S believes that *p* believes that she believes that *p*, and *automatically* also believes that her belief that *p* is true, viz. without having raised the question whether her belief that *p* is true and without having intentionally used a method for settling this question. In this case, S believes that her belief that *p* is true *without having checked* whether her belief that *p* is true. In order to check, S has to perform an *additional* cognitive process. Moreover, in cases of ordinary self-reflection, the focus of S's attention tends to be the world [...]. (Melchior, 2019: 222)

In the concluding chapter of the book (Chapter 8), Guido notes several features that accentuate the contrasts between ordinary self-reflection and checking one's own beliefs.

In ordinary contexts, a reflective subject typically has not only first-level beliefs about the external world, e.g., that there is a computer in front of her, but also higher-level beliefs (at least implicitly) that she has these external-world beliefs as well as beliefs (at least implicitly) that her external-world beliefs are true. These are then characteristics of the processes of *ordinary self-reflection*. Hence, both checking one's own beliefs *and* ordinary self-reflection can involve the following beliefs:

- B(There is a computer in front of me)
- B(I believe that there is a computer in front of me)
- B(My belief that there is a computer in front of me is true). (Ibid.: 222)

However, when doubting our own beliefs, we raise the question about the truth of our own beliefs and intentionally seek a method that would answer it. We do not raise this question in cases of ordinary self-reflection. This process of acquiring higher-level beliefs via doubting is neither automatic nor synchronic. Furthermore, we tend to shift our attention from the external world toward our own beliefs and the question of their truth. Thus, ordinary self-reflection and checking one's own beliefs

can also be distinguished by a tendency to shift the attention from the external world to our own beliefs and their potential truth.<sup>4</sup> And this leads to the crucial distinction:

[W]e will see that the cognitive processes of ordinary self-reflection and of checking one's own beliefs support different epistemic intuitions. Importantly, Moorean reasoning is intuitively correctly used in contexts of ordinary self-reflection but is an intuitively flawed method for checking whether our own beliefs are true. (Ibid.: 223).

This will be understood as pointing to the restraint solution. In short, for Guido, ordinary self-reflection is not problematic, while checking one's own beliefs is. To put it in virtue-epistemological terms, ordinary self-reflection can go along with a virtue, while checking one's own beliefs points to a vice.

A most dramatic variant of the checking problem in relation to skepticism is bootstrapping. Minimal bootstrapping, as described in the book (Ibid.: 199), is inference to the proposition  $p$  that starts from some observation that indicates that  $p$  ("I have hands"), notes the fact of indication (my sight indicates this), and concludes that observation truly indicates ("My sight is right about me having hands").

Now, our drive to check motivates us to do the bootstrapping which then leads to epistemic defeat which results in the skeptic winning. The Moorean type of proof of our knowledge concerning the external world leads to such a defeat if we take it as a checking strategy.

Guido notes that "[o]ur intuitions concerning bootstrapping say that basic knowledge and knowledge via induction are plausible, but that bootstrapping does not lead to knowledge" (Ibid.: 7). He notes that these intuitions are mutually incompatible. The secret lies in the trap of checking. "Bootstrapping is an obviously insensitive method for determining whether a source is reliable and, therefore," Guido continues, it "fails to be a checking method. When deliberating about bootstrapping, we enter a context of checking in which we think that insensitive methods cannot

<sup>4</sup> Compare Jane Friedman (2019):

First, checking is inquiring. Sometimes we "check" in a thinner sense—we have the habit of jiggling the lock a few extra times or tapping our pockets when something important is in there. In some of these cases, the behaviour is more like a tic than a genuine investigation. I'm interested in the cases that involve genuine inquiry and investigation. My checkers are really trying to collect more information and are not just performing certain habitual movements or looking at the stove for any number of other (non-epistemic) reasons. I take it that typical double-checkers and triple-checkers (etc.) are genuine inquirers. (p. 85).

As well as:

Acts only count as acts of inquiry when they are grounded in or perhaps motivated by an inquirer's desire to know more or figure something out or understand something better. This means that genuine inquiry is an activity with an essential attitudinal component: inquirers have epistemic aims, and actions done in the service of inquiry are in part motivated by those epistemic aims.

This attitudinal component of inquiry comes in many familiar forms: curiosity, wondering, contemplation, deliberation, and more. I've called these attitudes 'interrogative attitudes'. All inquirers have interrogative attitudes, i.e., a subject inquiring into  $Q$  at  $t$  has an interrogative attitude towards  $Q$  at  $t$ . Inquirers are wondering where their passports are or curious about whether they left the stove on, and so on.

But the interrogative attitudes all involve suspension of judgment. (p. 88).

yield knowledge. Therefore, we regard bootstrapping as an inappropriate method for acquiring knowledge about the reliability of a source.” (Ibid.)

This leads to an interesting discussion of Moore and raises interesting and important issues concerning the rationality of checking, which should be addressed in the future.

### 3 Bounded Reflective Curiosity: a Virtue-Epistemological Perspective

I want to explore the virtue-epistemological perspective to issues concerning curiosity, in a somewhat Moorean spirit, relying upon suggestions from Guido’s book summarized in the previous section.<sup>5</sup> My background assumption is that we need both character virtues and virtues-abilities and that the former play a crucial role in matters of motivation which are of interest here (I assume that virtues-abilities are not problematic).<sup>6</sup>

Let me note that the virtue-theoretical positive evaluation of restraint, like the one to be proposed here, can be found in Neil C. Manson’s paper aptly titled “Epistemic Restraint and the Vice of Curiosity” (2012). He appears to me more critical of curiosity than I am, but we both accept that epistemic restraint can be a virtuous stance. In my book (2020) I argue that curiosity is the central motivating epistemic virtue. A human being devoid of curiosity would have little motivation to arrive at true belief and knowledge. In normal cases, it is curiosity that motivates us to gain true belief and knowledge. On the usual view of motivating virtues, this would seem to make it a virtue; since it is the main spring of motivation, we should take it as the motivating epistemic virtue. After all, wanting to know whether  $p$  gives cognizers particular instances of  $p$  (or of its negation) as particular goals and the truth as the general epistemic goal. Thus, we have a truth-focused motivating virtue: inquisitiveness or curiosity having the reliable arrival at truth as general goal. This is, I claim in my book, the core motivating epistemic virtue.

Guido talks briefly about virtue-epistemological views (3.7 Checking and Knowing, *SAC, and Virtue Epistemology*). He does not precisely outline the nature of his normative framework. I shall simply assume that the norms of rationality guide our quest for knowledge (joining authors, such as Duncan Pritchard, who speak of “rationally grounded knowledge” as their target (Pritchard, 2016: 34), and of “rational evaluation” (Ibid.: 55ff) in epistemology) and support the evaluation in terms of virtue vs. vice. I shall also take a broader view following the good old Aristotelian paradigm with virtue in the middle and vices on both sides: **Vice 1—Virtue—Vice 2**. Furthermore, I will place the main ideas of Guido’s picture into this paradigm.

Let us start with the vices. We can contrast two extremes. The first negative extreme is epistemic rashness in inquiry, reasoning, and argumentation, which goes

<sup>5</sup> For a solid overview of virtue-theoretical responses to skepticism, see Axtell (2008).

<sup>6</sup> For more on my background assumption, see Mišćević (2020), Part Two, especially Chapters Four and Five.

with gullibility, uncritical acceptance, and the like. The opposite vicious extreme is active inconfidence and misplaced mistrust. We can wonder about its motivation and causes (see below my analysis of rationality). Here, we encounter the vicious need to check. In line with Guido's characterization, we can assume that in this vicious practice too much value is ascribed to sensitivity and that it further produces another typical negative effect: a drive to bootstrap. This second, opposite negative extreme, is our topic here.

Remember Guido's diagnosis of the skeptical problem:

[I]n contexts of ordinary self-reflection we have external-world knowledge and knowledge that the skeptical hypothesis is false via Moorean reasoning whereas in contexts of doubting and checking our own beliefs we know none of these propositions since Moorean reasoning cannot yield knowledge in these contexts. (Melchior, 2019: 259)

Now, what about the virtue in the middle? How far may we go accepting epistemic offers from our senses, intuition, other people's testimony, and so on? Guido does not name the stance required for knowledge. I would call the requisite quality scrupulosity. It goes with vigilance and investigative interest (curiosity), and it is closely connected with a desire to check but does not overdo it. Thus, my guess is that this is the virtue in the middle. Certainly, the desire to check can go too far and become strong and active mistrust which finally pushes the thinker to bootstrapping. The desire to check thus turns into epistemic vice. Here is a table summarizing the idea of such epistemic motivational virtue as the middle between extremes.

VICES: FIRST NEGATIVE EXTREME EPISTEMIC RASHNESS	VIRTUE IN THE MIDDLE– SCRUPULOSITY Vigilance and investigative interest (curiosity)	VICES: SECOND NEGATIVE EXTREME ACTIVE MIS- TRUST
--	--	--

We can wonder about its grounds and causes; this would bring us to the topic of rationality, but we cannot address it at this point.

The vices mentioned here are zetetic, motivational vices that are intrinsic to epistemic structure, i.e., perversions of inquisitiveness-curiousity. The other kind, irrelevant here, are motivational vices that are external to the epistemic structure, i.e., of a more practical, less theoretical kind (for instance, those discussed by Cassam (2019) as "vices of the mind" in his book of the same title).

Connections with the issues of rationality are quite close and direct. Consider the general, all-encompassing epistemic rationality (what is the rational way of facing epistemic uncertainty?) It is easy to identify the lack of rationality (or crippled rationality) in the case of the vices of rashness: there is not enough reasoning, no questioning, so a cognitive process is performed by an automatic mechanism (what is called "System One" in the tradition of heuristics and biases theories of rationality). It is also easy to see the "virtue in the middle," i.e., epistemic scrupulosity, as an exercise in rationality. Our cognitive system performs a decoupling of the target belief and its immediate, spontaneous context, and investigates it from a sufficiently wide perspective.

However, the question that arises in discussing skepticism and bootstrapping is more difficult to judge: in what sense does the wish to check go too far, thus blocking knowledge? It appears similar to the aforementioned problems with decoupling: too much and in the wrong places. The target belief is completely isolated from context and judged *in abstracto*; no wonder this leads to desperate bootstrapping and the blocking of knowledge.

Guido's book thus raises interesting and important issues concerning the rationality of checking. Let me connect them with my view of curiosity.

What is in the book described as motivation to check seems to me a particular kind of curiosity. To stay with examples from the book, consider ordinary curiosity about the animal at the exhibit. The first-order curiosity asks what animal it is or whether it is a zebra. Checking happens at a higher level: if Thomas doubts and asks himself whether it is really a zebra or whether he has misperceived the animal, he climbs to a higher level. The book specifies that he intentionally uses the chosen method to find out the truth of his initial impression.

However, checking is then a matter of *reflective* curiosity, not of simple, naïve, first-order curiosity. Redirection and restrained inquisitiveness are here the road to virtue.

In particular, the epistemological solution I generally prefer is what the book calls *type-2 moderate invariantism* which in our case claims that Thomas's initial evidence for the zebra belief contains a sensitive method for establishing it, namely perception. However, it does not contain a method which would, in addition to the claim that the animal is a zebra, ascertain that (1) he is not being deceived and (2) that not some rare, exotic thing happened which would make a non-zebra look like a zebra (as it happened in Gaza). I agree with Guido (Melchior, 2019: 172) that consulting a sensitive method for determining the truth of the two claims is not necessary for knowing that the animal is a zebra. Furthermore, I agree that we falsely think that Thomas does not know because in contexts in which we are checking whether all the candidate propositions are true, we falsely think that consulting a sensitive method is necessary for knowing that the animal is a zebra. When Thomas turns to the checking of his zebra belief, his curiosity becomes reflective and refers to his first-level impression. If he goes too far with this attitude, his reflective curiosity will become vicious and turn him into Doubting Thomas.<sup>7</sup>

In short, if Thomas does not ask, he knows. This I view as a link to my curiosity book (Mišćević, 2020).

Thus, it seems that if I do not ask, I know that I am not being deceived. And I know that if my impression is correct, I am not being deceived. Marian David has kindly asked in the discussion in what sense it holds, namely, in what sense does Thomas know all this. The answer: in an implicit, tacit way. The mental sentences "I am not being deceived" and "If I have this impression I am not being deceived" are in his belief box, in its "tacit" sub-box.

---

<sup>7</sup> Allan Hazlett (2019) proposes that skepticism itself is an epistemic virtue. However, to most other authors a skeptical attitude seems too radical and extreme to be a virtue.

In short, skepticism seems tied to excessive and wrong-headed inquisitiveness, perhaps it is even its result. Too intense checking can make irrelevant alternatives come into play, thus making them relevant. “Can I be sure this is not a painted mule?” is the crucial reflective question. Once it is raised, the desire to check arises, and it can easily go too far and turn into strong and active mistrust; it thus becomes epistemic vice. Guido writes that consulting a sensitive method for *o* and not *d//* being true is not necessary for knowing that *o*, and this looks like a good diagnosis to me.

Linda Zagzebski comes close to the restraint solution when discussing the virtuous self-trust:

My response to skepticism is that we have the same grounds for rejecting it as we have for taking it seriously in the first place. Skepticism arises from the belief that there is a gap between the mind and the world. We have no argument for that belief, but it is natural. It is equally natural to believe the gap can be bridged. That belief, I’ve argued, is reasonable, and because we have that belief, we need self-trust. Self-trust is reasonable in the sense that it is unreasonable to permit reason to thwart our nature. The person who takes skepticism seriously enough to let it affect her confidence in a wide range of her beliefs, emotions, and acts is a person who permits reason to thwart her nature. It is not reasonable to do that even if the use of reason does not show us a convincing response to the infinite regress argument or Cartesian skepticism. (2009: 74)<sup>8</sup>

What about other central examples and the corresponding kinds of problems? What are the principled differences between various kinds of examples? Take the contrast between the BIV and the Zebra case (David raised this question in the discussion). Reflective curiosity goes too far in both cases but differs in the direction. The excess of the BIV consists in its going too far into the thought-experimental scenario, while the excess of the Zebra case is in the subject’s digging too deep into the ordinary scenario.

In Kripke’s Red barn case the contrast is between the observer’s knowledge and the subject’s knowledge since the subject does not know that only red barns are really barns. The judge raises the level of her second-order curiosity by projecting the observer’s alternative onto the subject’s mind.

In high vs. low stake cases, we have a contrast between the external value or the usefulness of external stakes and the immanent value of knowledge. The drive to check normally neglects the low value of stakes, focusing on the knowledge vs. ignorance contrast.

An interesting contrast is the one between deeply obvious truths and less firm candidates. Wittgenstein makes this contrast central to his account by calling the former “hinges” (ger. *Angeln*). He claims that doubting in their case makes no sense, that it cannot even start in normal circumstances. In our terminology, the

<sup>8</sup> See also the Chapter “Epistemic Self-Trust” in Zagzebski (2012). I set aside here Zagzebski’s “The Moral Transcendental Argument against Skepticism” (2020).

second-order curiosity in relation to hinges is particularly vicious. Here is a quote from Wittgenstein's *On Certainty* (1969):

19. The statement "I know that here is a hand" may then be continued: "for it's *my* hand that I'm looking at". Then a reasonable man will not doubt that I know.—Nor will the idealist; rather he will say that he was not dealing with the practical doubt which is being dismissed, but there is a further doubt *behind* that one.—That this is an *illusion* has to be shown in a different way.

163. Does anyone ever test whether this table remains in existence when no one is paying attention to it?

We check the story of Napoleon, but not whether all the reports about him are based on sense-deception, forgery, and the like. For whenever we test anything, we are already presupposing something that is not tested. Now am I to say that the experiment which perhaps I make in order to test the truth of a proposition presupposes the truth of the proposition that the apparatus I believe I see is really there (and the like)?

164. Doesn't testing come to an end? (Hat das Prüfen nicht ein Ende?)<sup>9</sup>

Nonetheless, there is the possibility of disagreement: for Wittgenstein, things that cannot be checked, i.e., the hinges, cannot be objects of knowledge. For Guido and me, checking is independent of knowledge, therefore no Wittgensteinian conclusion can be reached. If we read Guido's proposal from a virtue-epistemological perspective, virtue-epistemology here parts ways with Wittgenstein: the restraint solution is not Wittgensteinian!

#### 4 Conclusion: the Restraint Solution and the Ideal of Bounded Reflective Curiosity

In this paper, I express my agreement with the central line of the book, culminating in the restraint solution of the skeptical puzzle, and neither question nor criticize it. Instead, I propose a virtue-epistemological interpretation of the restraint

<sup>9</sup> And here is more:

444. "The train leaves at two o'clock. Check it once more to make certain" or "The train leaves at two o'clock. I have just looked it up in a new time-table". One may also add "I am reliable in such matters". The usefulness of such additions is obvious.

445. But if I say "I have two hands", what can I add to indicate reliability? At the most that the circumstances are the ordinary ones.

446. But why *am* I so certain that this is my hand? Doesn't the whole language-game rest on this kind of certainty? [...].

485. We can also imagine a case where someone goes through a list of propositions and as he does so keeps asking "Do I know that or do I only believe it?" He wants to check the certainty of each individual proposition. It might be a question of making a statement as a witness before a court.

486. "Do you know or do you only believe that your name is L. W.?" Is that a meaningful question?

Do you know or do you only believe that what you are writing down now are German words? Do you only believe that "believe" has *this* meaning? *What* meaning?

solution and re-interpret the problem of excessive checking as the problem of unbounded reflective curiosity.

Accepting the idea that rationality is guiding our quest for knowledge, I propose a simple division of epistemic virtues and vices: rationality embodies virtues in the middle and vices form the extremes:

VICES: FIRST NEGATIVE EXTREME	SCRUPULOSITY VIRTUE IN THE MIDDLE	VICES: SECOND NEGATIVE EXTREME
EPISTEMIC RASHNESS – MOTIVATION /NEGATIVE/: Rashness in reasoning and argumentation	<b>-ABILITY cognitive skill in reasoning –MOTIVATION: /POSITIVE/: Vigilance and investigative interest (curiosity)</b>	<b>–MOTIVATION/NEGATIVE/: Reflective over-caution</b>

Guido's account based on the need to keep checking under control provides a fine recipe for a rational reaction to skepticism from the perspective of epistemic virtues.

As mentioned above, I prefer the solution to the skeptical problem that Guido calls *type-2 moderate invariantism*. It assumes that in typical situations the subject's evidence contains a sensitive method for the truth of some ordinary proposition, but not for the joint truth of (1) the latter proposition, (2) the proposition that she is not being deceived, and (3) the proposition that there is no threatening lottery puzzle lurking around. I agree with the central claim of the book that consulting a sensitive method for the joint truth of the three propositions is not necessary for knowing that the first, ordinary one holds. Most importantly, I agree that people reflecting on this kind of situations falsely believe that the subject does not know that the ordinary proposition holds because, in contexts of checking whether all three are true, we falsely believe that consulting a sensitive method for ascertaining that non-deception and non-lottery propositions are true is necessary for knowing that the ordinary one holds. (Cf. Melchior, 2019: 172).

This line of argument, I hope, can be applied to other important issues in epistemology, such as low vs. high stakes, closure puzzles, and the like. As I noted, Guido's analysis thus points in fact to a possible virtue-theoretic answer to skepticism, which I call *the restraint solution*: activate your self-trust and restrain your inquisitiveness! This idea of the restraint solution leads one to the ideal of bounded reflective curiosity: when it comes to knowing we should restrain our second-order, reflective curiosity, and stay content with the somewhat Moorean trust in ordinary, everyday beliefs. We can preserve our ordinary, first-order vigilance and investigative interest (curiosity) without falling into skeptical over-caution, which is basically a reflective, second-order vicious attitude.

What counts as belonging to first-order vigilance and investigative interest? We can imagine an interlocutor appealing to Sosa's version of virtue-theoretical answer to skepticism and therefore insisting on the inclusion of reflective, second-order investigation into the struggle with skepticism. In writing on Moore, Sosa states that ordinary beliefs are acceptable on the first level but reflexively justified on the second level:

None of the options considered by Moore holds much attraction to us now. What wrong turn leads to that blind alley? One mistake is to suppose that you can know about the hand only if you *know* you are not dreaming. You must *not* be dreaming, of course, but you needn't know it, not for animal knowledge. Animal knowledge of the hand requires no knowledge that it is not just a dream. So, we could just respond to the skeptic by denying what Moore is so willing to grant, as is Descartes if we believe Moore. "What is required by our perceptual knowledge of a fire we see, or a hand," we could respond, "is just that we be awake, and not that we *know* we are awake." (Sosa, 2009: 21)

Then, he claims that this "would take us only part of the way out. For, we want a knowledge that is not just animal but also reflective. We want a knowledge that is defensible in the arena of reflection." (Ibid.) He further stresses the role of reflective knowledge in the refutation of skepticism:

Although reflective knowledge requires knowledge that we are awake, fortunately, this required knowledge need not be *prior* knowledge. Here's why. Reflective justification is web-like, not transmissively linear. The web of belief attaches to the world through perception and memory. But each of its nodes depends on other nodes directly or indirectly. The web is woven through the rational basing of beliefs on other beliefs or experiences. There is no reason why such basing must be asymmetrical, however, no reason that precludes *each* belief from being based at least in part (perhaps minuscule part) on other beliefs. *Each* might thus derive its proper epistemic status from being based on others in a web that is attached to the world by causation through perception or memory. (Ibid.: 22)

One could reply by agreeing with Sosa's main line: yes, we need the more holistic, web-like support for our everyday beliefs, and yes, this involves some reflection. However, it need not be the over-demanding, checking reflection. We need not start by doubting our everyday beliefs, we just reflectively seek some additional support for them by asking questions about the world. Remember Guido's suggestion that the cognitive processes of ordinary self-reflection and of checking one's own beliefs support different epistemic intuitions: in cases of ordinary self-reflection, the focus of S's attention tends to be the world (Melchior, 2019: 222). Importantly, Moorean reasoning is intuitively correctly used in contexts of ordinary self-reflection but is an intuitively flawed method for checking whether our own beliefs are true. (Ibid.: 223).

Consider the Zebra case. I can visit the favorite zoo of my early days, the one in Zagreb, and ask myself what kind of animal the zebra-like mammal in front of me is. The question is primarily about the animal, not about my beliefs concerning it. I can then appeal to my web of belief concerning the Zagreb Zoo: I used to go there and spend hours looking at animals, and I read the local weekly magazine discussing matters related to the Zoo; there was never a scandal involving fake animals. My biology teacher never warned me of such a possibility, nor did the biology students I knew later. Thus, I can safely assume that there is a zebra in front of me. The

Sosa-style web-of-belief reflection is not the exaggerated checking reflection present in skeptical scenarios.<sup>10</sup>

The critic might argue that the difference between the reflection on the truth of some problematic proposition and the problematic reflection on one's beliefs is insignificant and, in any case, less dramatic than described here. I agree that this valid question merits further discussion. However, for the moment I stay with the optimistic view that we can safely follow the restraint solution and the ideal of bounded reflective curiosity.

This line of thought could and perhaps should be developed as a new virtue-theoretic answer to skepticism, and compared, for instance, to the Wittgenstein-inspired answers that limit the scope of legitimate checking as well. Nonetheless, I hope I have shown that the virtue-theoretic re-interpretation of Guido's interesting and original line of thought is useful and promising.

**Funding** Open access funding provided by Central European University Private University

## Declarations

**Competing Interests** The authors declare no competing interests.

**Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

## References

- Axtell, G. (2008). Virtue-theoretic responses to skepticism. In J. Greco (Ed.), *The Oxford Handbook of Skepticism* (pp. 557–580). Oxford University Press.
- Cassam, Q. (2019). *Vices of the mind: From the intellectual to the political*. Oxford University Press.
- Friedman, J. (2019). Checking again. *Philosophical Issues*, 29, 84–96. <https://doi.org/10.1111/phils.12141>
- Friedman, J. (2020). The epistemic and the Zetetic. *Philosophical Review*, 129(4), 501–536.

<sup>10</sup> Guido rightly distinguishes ordinary self-reflection from the dangerous, checking kind:

MOSAC Doubting one's own beliefs is typically the first step of a process of checking of one's own beliefs whether they are true. In such checking contexts, we tend to think that we cannot know that our beliefs are true via strongly insensitive methods, especially not via monotonous methods. Moorean reasoning is obviously a monotonous method, always indicating that the checked beliefs are true regardless of whether they are actually true. Therefore, in skeptical contexts of doubting, we think that we do not know via Moorean reasoning that our beliefs are true and that Moorean reasoning is a flawed response to the skeptical challenge. In contexts of ordinary self-reflection, this tendency does not apply. In these contexts, we think that we have immediate external world knowledge and knowledge that our sense apparatus are reliable and that the skeptical hypothesis is false in a way that is a complex form of Moorean reasoning. (Melchior, 2019: 233–234).

- Hazlett, A. (2019). Skepticism. In H. Battaly (Ed.), *The Routledge Handbook of Virtue Epistemology* (pp. 221–231). Routledge.
- Manson, N. C. (2012). Epistemic restraint and the vice of curiosity. *Philosophy*, 87(2), 239–259.
- Melchior, G. (2019). *Knowing and checking: An epistemological investigation*. Routledge.
- Miščević, N. (2020). *Curiosity as an epistemic virtue*. Palgrave Macmillan.
- Pritchard, D. (2016). *Epistemic angst: Radical skepticism and the groundlessness of our believing*. Princeton University Press.
- Sosa, E. (2009). *Reflective knowledge: Apt belief and reflective knowledge* (Vol. II). Oxford University Press.
- Wittgenstein, L. (1969). *On certainty*. Harper and Row.
- Zagzebski, L. (2009). *On epistemology*. Wadsworth.
- Zagzebski, L. (2012). *Epistemic authority: A theory of trust, authority, and autonomy in belief*. Oxford University Press.
- Zagzebski, L. (2020). The moral transcendental argument against skepticism. *epistemic values: Collected papers in epistemology* (pp. 333–352). Oxford University Press.

**Publisher's Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.