

## Understanding, Truth, and Epistemic Goals

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**Abstract:** Several argue that truth cannot be science's sole epistemic goal, for it would fail to do justice to several scientific practices that advance understanding. I challenge these arguments, but only after making a small concession: science's sole epistemic goal is not truth as such; rather, its goal is finding true answers to relevant questions. Using examples from the natural and social sciences, I then show that scientific understanding's epistemically valuable features are either true answers to relevant questions or a means thereof.

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**1. Introduction.** Understanding has garnered increasing attention among philosophers of science. Arguably, understanding's relation to truth is the most vexing topic in this burgeoning literature. This relation can be explored in multiple ways. Perhaps the most familiar to philosophers of science is to find clear cases in which scientific understanding was achieved, and then to discern whether any falsehoods played a role in this achievement. However, from early on, virtually everyone has agreed that falsehoods play *some* role in understanding. We should now focus on *which* roles these falsehoods play.

Progress on this front requires identifying the specific *epistemic goals* that these falsehoods promote. So construed, debates about understanding and truth's relation are fruitfully transformed. Intuitively, truth is one of science's epistemic goals. But can falsehoods be a means to truth? If so, would this exhaust the role that they serve in understanding?

Some answer these questions negatively (De Regt 2017, Elgin 2017, Potochnik 2017). For instance, Elgin (2017, 16) claims that "an adequate epistemology should explain what makes good science cognitively good. Too strict a commitment to truth stands in the way." By contrast, I will argue that such a commitment does not stand in the way of explaining science's cognitive goods. I defend this claim not out of any deep love of the truth. Rather, I am motivated by the conviction that *many* reasonable scientific axiologies will accord epistemic value to understanding. Hence, against Elgin and others, I claim that a truth-centric or "veritistic" axiology is *one* way to account for scientific understanding's epistemic value. Importantly,

however, I don't claim it's the *only* way to do so. At root, then, I defend veritism largely to promote a kind of pluralism or tolerance about scientists' core epistemic goals.<sup>1</sup>

Lest this all seem abstruse, philosophical accounts of epistemic goals serve several functions. First, they account for methodological norms, as presumably, methodology is a means to achieving the goals of inquiry. Second, they can inform accounts of scientific progress, which consists in advancing the goals of inquiry. Third, they can explain scientific success—a staple of the scientific realism debates—which consists in realizing the goals of inquiry. Thus, debates between veritists and their understanding-adoring interlocutors have implications for methodology, progress, and realism.

I proceed as follows: section 2 motivates and clarifies my thesis; sections 3 and 4 consider different candidates for epistemically valuable features of understanding, showing that all of them are derivative of veritistic value, or else are of dubious epistemic value.

**2. Understanding and Truth.** Several have argued that veritistic conceptions of science cannot do justice to science's aim of understanding phenomena. In this section, I clarify the exact contours of this clash between truth and understanding. Let's begin by characterizing the relevant kind of objections to veritism, which I'll call "understanding objections:"

U1. If veritism is true, then feature *X* of understanding is not epistemically valuable.

U2. *X* is epistemically valuable.

U3. ∴ Veritism is false.

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<sup>1</sup> For similar reasons, one might also regard my arguments as serving the kind of "voluntaristic" epistemologies that Chakravartty (2017) and van Fraassen (2002) defend.

My central aim is to show that understanding objections are unsound. I will not be offering a positive argument for veritism.

Before doing so, I define this argument's key terms. Traditionally, "veritism" denotes the position that science's only epistemic goal is truth.<sup>2</sup> By "epistemic goal," I mean that which can serve as the goal of a scientific inquiry, where inquiries are networks of interrelated questions and answers.<sup>3</sup> Thus, if understanding is an epistemic goal, then when scientists ask certain questions, their goal is to understand. If truth is an epistemic goal, then when scientists ask certain questions, their goal is to discover the truth.

This emphasis on questions suggests an important revision to veritism. Traditionally, veritists have prized true *statements* or *beliefs*. Instead, I defend "inquisitive" veritism, wherein the only epistemic goal of science are true *answers to relevant questions*.<sup>4</sup> The move from traditional to inquisitive veritism shifts the debate's terms. In particular, friends of understanding may be right to criticize traditional veritism, but I'll argue that they're wrong to criticize inquisitive veritism. Indeed, hereafter, "veritism" denotes inquisitive veritism.

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<sup>2</sup> Kitcher (2002, 550) provides a representative statement: "*Veritism*: Science aims to accept... true statements."

<sup>3</sup> The distinction between epistemic and non-epistemic value is notoriously difficult to explicate in a theory-neutral manner. The "goals-of-inquiry" explication adopted here is the most common theory-neutral explication of this distinction in epistemology. Alternative ways of forging this distinction are not discussed here.

<sup>4</sup> Khalifa and Millson (2020) propose and elaborate in greater detail a kindred position, "inquisitive truth monism."

Such a shift also requires us to say a bit about when questions are relevant. At root, it suffices for my purposes if the questions that I invoke are questions that scientists would deem relevant in paradigmatic contexts. More speculatively, at least three contextual factors determine questions' relevance. First, scientists may find questions interesting, either for practical reasons or out of sheer curiosity. Second, scientists may be obligated to answer certain questions owing to their role-responsibilities. These responsibilities are frequently marked by scientists' areas of expertise. Third, when scientists find one question relevant, they may then be on the hook for answering several "sub-questions" that are required to answer their original question.

Additionally, I assume that something is epistemically valuable just in case it instantiates or is an effective means to realizing an epistemic goal. Thus, according to understanding objections, some epistemically valuable features of understanding are neither true answers to relevant questions nor effective means for arriving at such answers. I will argue that this claim is unsubstantiated.

To do so, sections 3 and 4 consider understanding's *prima facie* epistemically valuable features: truth-enough, empirical adequacy, explanation, inference, non-propositional representation, systematicity, salience, and cognitive skill. These are drawn from those who most explicitly distance understanding from truth (De Regt 2017, Elgin 2017, Potochnik 2017); *a fortiori*, their critics would more readily accept veritism. If each member of this list can be shown to: (a) consist of true answers to relevant questions, (b) be an effective means of acquiring these answers, or (c) be non-epistemically valuable, then my defense of veritism is achieved.<sup>5</sup>

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<sup>5</sup> A single feature of understanding might exhibit all three of these kinds of value. I simply highlight the kind of value that (in my opinion) the feature most readily embodies.

**3. Understanding's Veritistic Value.** An understanding objection's first premise, U1, states that if veritism is true, then some feature of understanding is not epistemically valuable. As I will now show, veritists have ample resources for bestowing epistemic value upon many of understanding's features: truth-enough, empirical adequacy, explanation, inference, non-propositional representation, and systematicity. Hence, understanding objections appealing to these features are unsound.

*3.1. Truth-Enough.* Abstractions, approximations, and idealizations are all thought to provide understanding while being false. A successor-concept, such as Elgin's "truth-enough" or Potochnik's "representation as-if," is frequently proposed in truth's stead. Propositions are true enough just in case they're close enough to the truth to achieve one's epistemic goals. For this to undercut veritism, true enough propositions could be neither true answers to relevant questions nor a means to acquiring such answers. However, true enough propositions appear capable of serving either role. Thus, they pose no challenge to veritism.<sup>6</sup>

Begin with abstractions, in which certain truths are omitted. Precisely what gets abstracted appears to be a function of which questions are relevant. For instance, Schelling's (1971) model of segregation omits organizational practices and specialized communication systems as causes of segregation in order to answer the highly circumscribed question, "How

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<sup>6</sup> Using various equations of state as examples, Khalifa and Millson (2020) provide a more extensive veritistic treatment of idealizations, discuss approximations of a very different sort, and do not discuss abstractions at all.

could segregation result from the interaction of individual choices?” Moreover, since Schelling is only looking for a *possible* (rather than an actual) way for segregation to occur via individual choices, his model provides a true answer to this question.<sup>7</sup> Thus, models with abstractions can still provide true answers to relevant questions. Consequently, abstractions don’t threaten veritism.

Next, consider approximations, in which something is close to the truth, but not perfectly accurate. Here, we should distinguish between: (i) the true claim that *approximately, p* and (ii) the false but approximately true claim that *p*. Since the former is true and not merely true enough, veritism allows it to serve as an answer to a question. Moreover, questions often dictate suitable standards of approximation. For example, in their empirical evaluation of Schelling’s hypothesis, Bobo and Zubrinsky (1996) appear to be answering questions such as, “Controlling for age, occupation, education, and sex, how strongly do whites’ in-group preferences correlate with their preferences to live in segregated neighborhoods with  $p \leq 0.05$ ?”

Indeed, this provides the ingredients for a veritistic treatment of false but approximately true claims. In short: scientists are actually communicating (i) true claims about approximations although they are uttering (ii) false but approximately true claims. Since the former pose no threat to veritism, neither do the latter. For instance, in Bobo and Zubrinsky’s question, the aforementioned demographic variables are typical controls in sociological research; the 0.05 *p*-value is the default scientific convention. Hence, as bits of common knowledge, these standards of approximation are frequently left implicit. In such contexts, utterances of the form “*p*” typically express that *p* falls within the accepted standards of approximation. Hence, although

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<sup>7</sup> Sullivan and Khalifa (2019) offer more detailed arguments to this effect.

what is said is (strictly speaking) false, what is communicated is a true claim about an approximation. Thus, even the “tough” approximations conform with veritism.

While both abstractions and approximations offer true answers to relevant questions, idealizations cannot, for they are not even approximately true. For instance, the ideal gas law is:

$$pV_m = RT$$

Here,  $p$ ,  $V_m$ , and  $T$  denote a gas' pressure, molar volume, and temperature, respectively, and  $R$  is the ideal gas constant. Some statistical-mechanical models of this law entail, contrary to fact, that particles in ideal gases do not interact. This idealization enhances scientists' understanding of the ideal gas law.<sup>8</sup>

Inquisitive veritism treats idealizations as *false* answers to *irrelevant* questions. For instance, in the aforementioned derivations of the ideal gas law, scientists are not seeking to answer, “Do particles in ideal gases interact?” If they were, then they would be sorely misled.<sup>9</sup> Nevertheless, idealizations are epistemically valuable because they are a *means* to arriving at *true* answers to other, *relevant* questions. For instance, the aforementioned derivation seeks to

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<sup>8</sup> Some discussions in this literature conflate the ideal gas law with the statistical-mechanical models from which it can be derived. The former is a good approximation of how many gases behave macroscopically at low pressure and high temperature. Only the latter entail the existence of particles, and only some of these models include false claims about particle interactions.

Doyle et al. (2019) discuss this conflation's pernicious effects on debates about understanding.

<sup>9</sup> By contrast, most other equations of state have parameters for particle interactions. In such cases, questions about particle interactions are relevant, which is precisely why it would be epistemically imprudent to invoke this idealization.



answer, e.g., “Why does the ideal gas law hold (at low pressure and high temperature)?” As several authors (e.g., Strevens 2008) have noted, whether particles interact is no part of the answer to this latter question. Rather, the answer resides in the partition function—which is true.<sup>10</sup> The idealization earns its keep by making the partition function’s relevant consequences—concerning the statistical mechanics underlying the ideal gas law—readily apparent. Thus, according to inquisitive veritism, the idealization is of instrumental epistemic value. Importantly, this account of idealizations only requires answers to be true or false and only requires questions to be relevant or irrelevant. Truth-enough is otiose.

Thus, the main reasons for rejecting veritism in favor of an axiology predicated on truth-enough are found wanting. We can do just as well by recognizing that scientists do not deem every question about a given phenomenon relevant. Epistemically valuable abstractions, approximations, and idealizations depart from the truth only insofar as they answer irrelevant questions. Hence, they are compatible with veritism, and do not support U1.

*3.2. Empirical Adequacy.* Sometimes, scientists forgo accuracy in order to increase understanding. However, requiring *some* parts of understanding to be accurate appears to be a good way of distinguishing genuine scientific understanding from the pseudo-understanding afforded by crackpot theories. For this reason, some claim that empirical adequacy, not truth, fittingly fastens understanding to the facts (De Regt 2017, Rowbottom 2019).

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<sup>10</sup> The partition function  $Z$  is given by a sum over all states of the system in terms of the energy  $E$  of each state:  $Z = \sum e^{-E/kT}$ .

Let *empirical statements* only describe observable entities, properties, and processes. Let *empirical questions* have empirical statements as true answers. Then, insofar as empirical questions are relevant, veritism accommodates this brand of empiricism. Veritism also mimics its proponents' flexible notion of empirical adequacy. For instance, De Regt (2017, 38) writes that "there may be variation in how [...empirical adequacy is...] ranked and applied in specific cases." Similarly, veritism suggests that different inquiries will deem different empirical questions relevant, and thereby allow for different kinds and degrees of empirical adequacy.<sup>11</sup>

Like empiricism, veritism also allows some non-empirical questions to be irrelevant, and thereby unsuitable as epistemic goals. However, veritism also allows for some relevant non-empirical questions. As a description of scientific practice, this appears desirable, as many scientists seem genuinely interested, if not professionally obligated, to ascertain whether unobservables (e.g. leptons) exist. It's unclear how empiricists about understanding accommodate this facet of scientific practice. Thus, all told, construing empirical adequacy as encapsulating the idea that some scientific questions are properly answered by empirical statements appears to accommodate all of the virtues of appealing to empirical adequacy, and arguably avoids some potential pitfalls of this approach.

*3.3. Explanation.* Many require tight connections between understanding and explanation (De Regt 2017, Khalifa 2017, Potochnik 2017, Strevens 2013). It is generally thought that if *A* explains *B*, then both *A* and *B* are true. Moreover, explanations are answers to why-questions. All of this accords with veritism.

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<sup>11</sup> Contrast these with van Fraassen's (1980) more demanding notion of empirical adequacy.

However, de Regt directly challenges the requirement that correct explanations require true explanantia.<sup>12</sup> For him, intelligible theories can yield falsehoods *F* that nevertheless explain some phenomenon *B*. Thus, de Regt's view suggests that *F* is false, but nevertheless correctly answers the question, *Why B?* This appears incompatible with veritism.

I offer two replies to de Regt's challenge. First, his semantics for explanation is somewhat implausible (Khalifa 2017, 162-164). If de Regt is correct, then statements of the form "*A* explains *B* but not-*A*" should be acceptable. However, statements such as "the patient's allergy explains her symptoms, but the patient has no allergies" border on incoherence. Consequently, it's unclear that falsehoods correctly answer why-questions. Indeed, such sentences are more fruitfully regarded as elliptical for *true* counterfactuals of the form: "if *A* were true, *A* would explain *B*." Thus, whenever questions about what would explain a phenomenon are relevant, veritism readily captures these statements' epistemic value.<sup>13</sup>

Second, even if explanations tolerate false explanantia, such explanations do not appear epistemically valuable unto themselves. Otherwise, crackpot explanations are difficult to rule out. Hence, epistemically valuable but false explanations must be a means to some other cognitive good. Indeed, de Regt requires explanations to promote empirical adequacy and systematicity. As section 3.2 shows, veritism ably accommodates empirical adequacy; section 3.6 does the same with systematicity. Thus, even if falsehoods explain, then veritism can account

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<sup>12</sup> Potochnik's account of explanation also challenges veritism, albeit less directly. See section 4.1.

<sup>13</sup> Khalifa's (2017) requirement that scientific understanding always involve consideration of these would-be explanations complements this veritist proposal.

for their value. In this way, veritists can still resist de Regt's understanding objection by denying U1, even while granting his controversial semantics.<sup>14</sup>

*3.4. Inference/Reasoning.* It seems possible to provide true answers about a topic without understanding it. Scientists' opening of various "black box" models illustrates the demand that understanding involve the theoretical and methodological *reasons* for why something is the correct answer.

However, this poses no problem for inquisitive veritism. Recall that inquiries are *networks* of interrelated questions and answers. In many scientific inquiries, this networking results from answering one question  $Q$  with  $A$ , and then asking "follow-up" questions about  $A$ , e.g. "Why  $A$ ?" or "Why believe that  $A$  is a correct answer to  $Q$ ?"<sup>15</sup> Reasons are then answers to these follow-up questions. For instance, Bobo and Zubrinsky claim that in-group preferences negligibly affect preferences to live in racially homogeneous neighborhoods. Why believe this? Because it's the result of a methodologically sound linear regression analysis, with people's preferences to live in communities of varying levels and kinds of racial diversity as the dependent variables, and "feeling thermometer" results, in which respondents rank the "warmth"

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<sup>14</sup> Note that inquisitive veritism recasts the scientific realism debate in an interesting way.

Antirealists are inquisitive veritists who (a) take only empirical questions to be relevant and (b) take most systematic explanations to be only a means to answering empirical questions; realists are veritists who deny these claims.

<sup>15</sup> On pain of regress, some follow-up questions must be irrelevant to a given inquiry. Nevertheless, answering enough follow-up questions can contribute to understanding.

of their feelings toward various racial groups (including their own), as one of several independent variables. Furthermore, understanding frequently improves in proportion to the number of follow-up questions correctly answered. Thus, inasmuch as understanding involves the recruitment of reasons, it appears to conform with veritism.

Admittedly, scientists sometimes use falsehoods to infer true answers; the aforementioned idealization in deriving the ideal gas law is an example. According to veritism, scientists should not cite these falsehoods as answers to follow-up questions. However, even here, veritism is unthreatened, for, as already discussed, such falsehoods still function as a means to true conclusions that answer relevant questions even if they cannot serve as true answers unto themselves.<sup>16</sup> Hence, as concerns reasoning, U1 is unsubstantiated.

*3.5. Non-Propositional Representations.* Much of scientific understanding involves non-propositional representations, e.g. models and diagrams. For this reason, some have turned to denotation and other non-propositional forms of representational success as a way to accommodate understanding-providing falsehoods. Roughly, the thought is that such falsehoods still are sufficiently tethered to the world by denotation, but the added slack afforded by eschewing truth allows them to provide greater understanding.

This stands in tension with veritism, as (non-elliptical) answers to questions are propositional. However, this tension is illusory. Even when construed non-propositionally,

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<sup>16</sup> Of course, reasoning with falsehoods is frequently (but not always) unreliable. However, veritism presumably requires all epistemically valuable means to be *effective* at answering relevant questions and not merely *intended* to do so.

scientific representations are widely thought to support “surrogative inference;” very roughly, competent and informed users can take statements about the representational source as premises and draw deductively valid or inductively warranted conclusions about the target (Suárez 2004). Surrogative inferences are sound when their conclusions are true. Let a scientific representation *A* of *B* be *successful* in context *C* just in case the sound surrogative inferences that appeal to *A* in their premises have conclusions that correctly answer every relevant question about *B* in *C*.<sup>17</sup> Such a formulation requires neither *A* nor *B* to be propositions. In this way, non-propositional representation can be seen as derivative of the surrogative inferences that are consonant with veritism.

3.6. *Systematicity*. One might think that even if one can provide true answers to relevant questions, one’s understanding suffers if those answers do not cohere in the proper way. Such coherence is partly a function of the explanatory and inferential relations discussed above, but sometimes, the claim appears to be that even if two bodies of statements were inferentially and explanatorily articulated to the same degree, they could differ in terms of global properties or theoretical virtues, such as simplicity and scope (De Regt 2017, Elgin 2017). Call a healthy balance of these virtues “systematicity,” and assume that it is an epistemically valuable feature of understanding.

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<sup>17</sup> Importantly, this account of representational success does not require representations to be perfectly accurate. Specifically, a representation may underwrite surrogative inferences with false conclusions, so long as these conclusions answer no relevant questions. See section 3.1 for examples.

Unfortunately, few theories of understanding unpack systematicity in any detail. I offer one proposal. Should this miss the mark, it behooves veritism's critics to propose alternatives. To begin, systematicity is not itself an answer to any question. But certain propositions—paradigmatically, invariant generalizations or “lawlike statements”—drive this systematicity. If these lawlike statements are true, then their suitability for answering questions such as, “What do these seemingly disparate phenomena have in common?” seems to be precisely why the web of commitments comprising an inquirer's understanding exhibits a certain kind of systematicity. In such cases, veritism clearly bestows epistemic value upon these lawlike statements.

Indeed, section 3.1 shows that these lawlike statements need only be *approximately* true in order to accord with veritism in this way. But could lawlike statements that fall short of this threshold still secure epistemically valuable kinds of systematicity? Those resistant to veritism sometimes suggest that Newtonian mechanics fits the bill. While that's debatable, let's grant, if only for the sake of argument, that Newtonian mechanics does not provide an approximately true answer to the question, “What do tidal patterns, planetary orbits, swinging pendula, falling apples, etc. have in common?” Then, we need some reason to think that Newtonian mechanics isn't “systematic” in the same way as, e.g., conspiracy theories. After all, *ex hypothesi*, it is claiming that various phenomena are related in ways that they are not. Even here, veritism offers a tidy solution: unlike conspiracy theories, classical mechanics' lawlike statements would still be an effective means for making predictions and thus for answering empirical questions (see section 3.2). In other words, veritism would still imbue these statements with instrumental epistemic value. Thus, whether a lawlike generalization—the engine of systematicity—is true or not, veritism does it justice. Yet again, U1 can be rejected.

**4. Understanding's Non-Epistemic Value.** Thus, insofar as understanding consists of a systematic, inferentially and explanatorily interconnected web of propositional and non-propositional representations that answer relevant questions, understanding objections do not undermine veritism. This covers nearly everything that has been propounded as epistemically valuable about understanding. Nevertheless, some loose ends remain. In such cases, veritists might challenge understanding objections' second premise, U2. On this line, veritists thereby deny the epistemic value of certain features of understanding. For purposes of illustration, I pursue this second strategy with respect to two features of understanding: salience and skill. In both cases, I argue that veritism captures everything that is epistemically valuable about these aspects of understanding (thereby extending the critique of U1), and that their lingering remainders lack epistemic value (thereby mounting critiques of U2.)<sup>18</sup>

*4.1. Salience.* Potochnik (2017, 95) holds that “idealizations contribute to understanding by representing as-if to the end of [i] depicting a causal pattern, thereby [ii] highlighting certain aspects of that phenomenon (to the exclusion of others) and revealing connections with other, possibly disparate phenomena that embody the same pattern or, in some cases that are exceptions to that pattern.”

This is plausibly interpreted as assigning only instrumental epistemic value to idealizations. Consider [i]: the depiction of causal patterns. Strictly speaking, depictions need not be accurate, so this might suggest that Potochnik has provided a genuine alternative to veritism. However, inaccurate causal depictions do not seem to have any epistemic value unto themselves.

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<sup>18</sup> Sullivan and Khalifa (2019) offer further arguments to this effect.



Presumably, they serve some further end. Indeed, the passage above suggests that Potochnik requires understanding-conferring causal depictions to [ii] highlight aspects of phenomena and reveal connections between phenomena.

Hence, if this challenges veritism, then it is because “highlighting and revealing” is an epistemically valuable feature of understanding. Furthermore, such a proposal is plausible: those who understand frequently notice things that others do not. So, let’s consider whether highlighting possesses epistemic value that eludes veritism; “revealing” admits of similar treatment.

First, a small semantic point: the verb *highlight* is naturally glossed as entailing a kind of accurate representation. If  $x$  highlights  $y$ , then  $y$  exists; if  $x$  highlights that  $p$ , then  $p$  is true. Furthermore, suppose that one’s representation “pseudo-highlighted” an aspect of a phenomenon, e.g. it vividly represented the phenomenon as having a property that it did not actually have. In isolation, such representations’ epistemic value is mysterious, to say the least.

However, true claims need not be highlighted. So perhaps this remainder is epistemically valuable in a manner that eludes veritism. Unfortunately, Potochnik says little about how to fund the difference between highlighted and non-highlighted aspects of a phenomenon.<sup>19</sup> Following Koralus (2014), a highlighted truth might simply be one that answers a relevant question. After all, those truths that serve our most pressing inquiries seem especially attention-grabbing. However, this proposal dovetails seamlessly with inquisitive veritism.

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<sup>19</sup> Elgin’s discussion of exemplification exhibits similar lacunae as Potochnik’s notion of highlighting.

So, for argument's sake, let's propose an alternative on Potochnik's behalf: that *salience* captures the difference between highlighted and non-highlighted truths. The problem is that any conceivable epistemic good *or its exact opposite* can be made salient. Crucially, in the latter case, our epistemic situation frequently worsens as a result of this salience. (Consider, for instance, the falsehoods and misunderstandings made salient in certain fringe social media bubbles.) This suggests that salience has no inherent epistemic value: everything hinges on *what's* being made salient. Consequently, if salience is what puts a truth on the highlight reel, then, contra U2, highlighted truths appear to have no greater epistemic value than non-highlighted truths. Hence, highlighting has no epistemic value over and above what veritism counsels.

4.2. *Skills*. Understanding frequently is thought to involve more than the possession of information. It also involves some kind of *ability* or *skill* (De Regt 2017, Newman 2012, Wilkenfeld 2013). However, if such abilities are no more than the capacity to answer relevant questions correctly or to make inferences that ultimately lead to such answers, then we have already seen that veritism readily accounts for their epistemic value. If, on the other hand, the abilities involve more than this, then we are owed an argument as to why they are epistemically valuable. After all, both questions and the reasoning that delivers their answers are quite varied, so it's not obvious that anything of epistemic value eludes their purview. To my knowledge, no such argument has been made. Moreover, abilities accrue much non-epistemic value. For example, being able to do things gives us a sense of accomplishment, makes us employable, increases our prospects of survival, etc. Perhaps these non-epistemic benefits account for any

value that abilities have in excess of the epistemic value captured by veritism. This, however, is cold comfort for purveyors of understanding objections.

**5. Conclusion.** I have argued that any epistemically valuable feature of understanding is either a true answer to a question or a means to providing such an answer. These features include truth-enough, empirical adequacy, explanation, inference, non-propositional representation, and systematicity. Other features of understanding, such as salience and cognitive skill, appear to have only distinctive non-epistemic value. If the preceding arguments are sound, then I have succeeded in showing that scientists who only aim for true answers to relevant questions would still find understanding valuable. Hence, veritism—at least of an inquisitive sort—is still viable.

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