

# Wondering and Epistemic Desires

## Abstract

This paper explores the relationship between the questioning attitude of wondering and a class of attitudes I call *epistemic desires*. Broadly, these are desires to improve one’s epistemic position on some question. A common example is the attitude of wanting to know the answer to some question. I argue that one can have any kind of epistemic desire towards any question,  $Q$ , without necessarily wondering  $Q$ , but not conversely. That is, one cannot wonder  $Q$  without having at least some epistemic desire directed towards  $Q$ . I defend this latter claim from apparent counterexamples due to Friedman (2013) and Drucker (2022), and finish with a proposal on which epistemic desires, particularly the desire for *understanding*, play an explanatory role in distinguishing wondering from other forms of question-directed thought.

## 1 Introduction

Wondering is associated with wanting to know. So much so that wondering is sometimes equated with wanting to know.<sup>1</sup> Like other attitudes, we commonly ascribe the attitudes of wondering and wanting to know as descriptions and explanations of behaviour. In this case, the behaviour is typically inquisitive. ‘She wants to know whether it’ll rain’, we might say, to describe and explain what Alice is doing when she stands outside peering up at the sky. Just as easily we might have said ‘she’s wondering whether it’ll rain’. Moreover, we do not reserve such reports solely for other language users. ‘He’s wondering/He wants to know where the ball went’, is something we might intelligibly say of a dog to explain his apparent surprise when he cannot find the ball we pretended to throw.

*Prima facie* then, we might think there is just one attitude here, an inquiring attitude we sometimes call ‘wondering’ and other times call ‘wanting to know’. Thus the following claim might tempt us:

$S$  wonders  $Q$  iff  $S$  wants to know  $Q$ .

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<sup>1</sup>The verb ‘wonder’ is sometimes analyzed in this way. In lexical semantics see Guerzoni and Sharvit (2007, p.387). More philosophically, Stanley (2011, p.42) interprets Karttunen (1977) as committed to this ‘want to know’ interpretation of ‘wonder’. Ciardelli and Roelofsen (2014: 1659) also informally characterize their account of wondering in terms of wanting to know or to acquire information.

But this claim is false - section 2 will make that clear. Additionally, once we go beyond the surface level of our ordinary usage of ‘wonder’ and ‘want to know’, things start to get even more tangled.

For one thing, it’s plausible that someone could wonder about some question in a merely idle way, perhaps just to temporarily amuse themselves, without really wanting to know the answer.<sup>2</sup> For another thing, wondering is a questioning attitude, directed at *questions*, whereas wanting to know is a desire, a propositional attitude, directed at *propositions*.<sup>3</sup> Wanting to know  $Q$  means wanting to know  $Q$ ’s answer. But this already threatens a tangle, because, at first glance, it’s plausible that one might wonder about various questions while having no idea of what their possible answers are. Perhaps one could be so radically ignorant or conceptually impoverished that one couldn’t even explicitly think about any possible answers. If this is so, and if one can nevertheless wonder about such questions, then how could wondering  $Q$  even imply wanting to know  $Q$ , never mind be identical with it?

Both of these concerns – idle wondering and radical answer ignorance – have been raised about the relationship between wondering and wanting to know.<sup>4</sup> Together, they tell against the claim that wondering  $Q$  implies wanting to know  $Q$ ’s answer. But I will defend a version of that claim here, albeit a weaker version. Here it is: wondering  $Q$  implies wanting to improve one’s epistemic position on  $Q$ . In other words, I defend the claim that wondering  $Q$  implies wanting to improve one’s epistemic position on  $Q$ . I call such desires for epistemic improvement *epistemic desires*.

For readers who wish to skip ahead, here is the map: the next section, 2, briefly explains why wondering can’t just be identical to wanting to know before briefly defending the weaker claim that wanting to improve one’s epistemic position on  $Q$  is nevertheless necessary for wondering  $Q$ . In this defence, I consider the case of idle wondering just mentioned. Originally this consideration is due to Drucker (2022), who thinks it severs the link between wondering and wanting to know. In response, I consider the attitude type of epistemic desires more closely – including the crucial attitude of wanting to *understand* – arguing that Drucker’s idle wondering is much less plausibly a threat to the claim that having at least some  $Q$ -directed epistemic desire is necessary for wondering  $Q$ .

Section 3 then turns to the second problem, due to Friedman (2013), that an agent who is radically ignorant about  $Q$ ’s possible answers might nonetheless wonder  $Q$  without having any propositional attitudes (e.g. epistemic desires) directed at  $Q$ ’s possible answers. I lay this challenge out and show that the case of radical answer ignorance, as Friedman calls it, in fact doesn’t undermine the connection between wondering and epistemic desires. On the contrary, the epistemic desires I claim a wondering agent must have actually help to explain

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<sup>2</sup>Drucker (2022)

<sup>3</sup>Friedman (2013) makes a sustained and persuasive case that attitudes like wondering are indeed question-directed and cannot be reduced to attitudes towards propositions. See also Thagaard (2006) for a critique of the idea that desire as a propositional attitude to begin with.

<sup>4</sup>Respectively by Drucker (2022) and Friedman (2013)

our intuitive judgments about wonderers who do lack the concepts required to explicitly represent possible answers to their questions.

Finally, section 4 examines a positive and promising proposal from Drucker (*ibid.*), an analysis of wondering that aims to get by without appeal to desires of any sort. Against this, I argue that something crucial to wondering is left out. To illustrate this I consider cases in which an agent goes through a series of mental states similar to those they go through while wondering and in such a way that satisfies Drucker’s proposal. And yet, *pace* Drucker, I think these cases clearly lack something that is essential to wondering. Namely, that in wondering  $Q$  an agent manifests a desire to better *understand*  $Q$ . At the limit then, wondering  $Q$  may or may not involve a desire to know  $Q$ ’s answer, but always implies wanting to understand.

## 2 Wanting to know and other epistemic desires

In addition to propositional attitudes we have a variety of attitudes that are clearly directed at questions. A natural first thought about how to identify these is to note which attitude verbs take interrogative clauses as complements and then take the attitudes denoted by them to be questioning attitudes. But this doesn’t get us very far. The syntactic categories of rogative, anti-rogative and responsive verbs do not seem to map neatly onto the distinction between propositional and questioning attitudes. Knowledge, after all, is not a questioning attitude, but the verb ‘know’ does take interrogative clauses.<sup>5</sup> So determining what it means for an attitude to be a questioning attitude rather than a propositional one is not such a trivial task.<sup>6</sup> At the very least, though, I take typical examples of questioning attitudes to include wondering, considering, and imagining. Another example is the attitude of wanting to know.<sup>7</sup>

Clearly, wondering and wanting to know run together to some extent. But they’re not identical. In particular we should reject the biconditional from the introduction:

### Wanting to know (WTK)

$S$  wonders  $Q$  iff  $S$  wants to know  $Q$

The right-to-left (RTL) direction of this biconditional is false. To paraphrase Friedman (2013), there are many questions that I right now want to know the answers to - for example, questions about the origin of the universe - but which I am not currently thinking about. In which case, it follows that although I currently do have a desire for this knowledge, I am not *ipso facto* currently

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<sup>5</sup>See Dayal (2016, pp.136-9) for an introduction to these categories.

<sup>6</sup>Indeed, recent work promotes a plausible picture of propositional attitudes as themselves question-directed or question-sensitive, so it is even more of a challenge to say which attitudes are genuinely questioning attitudes rather than merely question-directed or question-sensitive. See Schaffer (2004) and Yalcin (2018) respectively for question-directed accounts of knowledge and belief.

<sup>7</sup>Which, despite dictionary definitions, might not be the same as curiosity. See Whitcomb (2010), Friedman (2013), and Carruthers (2018).

wondering about these questions. But what if my desire to know  $Q$  becomes *occurrent* rather than merely lying dormant as a disposition? Mightn't this make the relevant difference, viz. wondering? Maybe we should accept the following refinement of WTK:

**Occurrent wanting to know (OWK)**

$S$  wonders  $Q$  iff  $S$  occurrently wants to know  $Q$ .

But again, no - we shouldn't accept this either. It too fails in its RTL direction. To see why, let's briefly clarify what 'occurrent' means here.

In the attitudes and philosophy of mind literature, the terminology surrounding occurrent attitudes is untidy. At least three related distinctions arise that mean slightly different things while nevertheless tracking a common theme: occurrent versus dispositional, explicit versus implicit, and conscious versus unconscious.<sup>8</sup> Here I will stick to the occurrent versus merely dispositional distinction, building on an interpretation by Bartlett (2018a,b). Here is my adaptation of Bartlett's proposal:

**Occurrent attitudes**

An attitude  $A$  is occurrent for  $S$  at  $t$  iff  $A$  characterizes and explains  $S$ 's ongoing actions or conscious thoughts at  $t$ .<sup>9</sup>

For example, while Alice is glancing around outside, squinting through the darkness, we can characterize and explain her actions by reporting that she wants to know where the cat is. At that time then, her desire to know is occurrent: it characterizes and explains what she is doing. Similarly, even when Alice is not observably behaving in a way we'd normally call 'acting', she might nevertheless be thinking. And if her thoughts at that time are characterized and explained by her wanting to know where the cat is, then at that time she occurrently wants to know where the cat is. Given this approach, it becomes clear that occurrently wanting to know  $Q$  does not suffice for wondering  $Q$  :

**Rushed Exam**

Alice is taking an algebra exam. She first reviews all the questions, noting that the final one,  $Q$ , seems especially difficult and will likely take her longer to answer correctly. But Alice really wants to ace the exam. Hence, she wants to know  $Q$ . And because she believes that answering  $Q$  will take longer, she hurries through the earlier questions as quickly as she can. While doing so, she focuses solely on those questions, deliberately avoiding thinking about  $Q$ .

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<sup>8</sup>Also note: active/passive and accessible/inaccessible. On the notion of explicit and accessible see Harman (1986), Stalnaker (1991, 1999), and of course Fodor (1975, 1981, 1987). The literature on conscious attitudes is much larger. For some useful and critical clarification see Crane(2013).

<sup>9</sup>One way in which my use differs from Bartlett's account is that it's less general. Bartlett takes  $A$ 's being occurrent for  $S$  at  $t$  to mean that  $A$  is *active* at  $t$ . Meaning that the mental state is undergoing 'changes in its salient properties' at  $t$ . Thus, for Bartlett, an attitude's undergoing changes in relation to other attitudes, mental states, or behaviour counts as sufficient for its being occurrent.

During Rushed Exam, Alice's desire to know  $Q$  characterizes and explains what she is doing at that time. So her desire to know  $Q$  is occurrent. But clearly Alice is not wondering  $Q$ . We can therefore conclude that occurrently wanting to know  $Q$  does not suffice for wondering  $Q$ ; OWK must be false.

But what about the left-to-right (LTR) directions of WTK and OWK? Is some form of wanting to know at least a necessary condition for wondering? Maybe we can at least accept:

**Wanting is Necessary (WIN)**

If  $S$  wonders  $Q$ , then  $S$  wants to know  $Q$

Drucker (2022) thinks we shouldn't accept this. To show why not, he considers the following sort of case as a counterexample:

... [suppose] someone is trying to pass the time but has misplaced their phone and so must amuse themselves somehow. Searching around for something to think about, they think about what the etymology of the word 'power' is, for example, is it Romance or Germanic? Initially it seems Germanic because of the '-er' ending, but then they remember the French 'pouvoir'. During all of this, they may be described in the following way ... They're wondering what the etymology of 'power' is, but they're not actually curious about it; it could have been anything-they're just trying to pass the time.' (p.60)

Let's call this sort of scenario 'Idle Wondering'. Clearly, then, it seems there are cases agents wonder  $Q$  without having the sort of dispositions that are characterized and explained by having a desire to know a complete answer to  $Q$ . That is, an agent idly wondering  $Q$  can lack a disposition to bring it about that she knows a complete answer to  $Q$ . On some conceptions, this is sufficient to disqualify one as having the desire to know  $Q$ .<sup>10</sup> That the idle wonderer lacks this disposition is clear from the fact that while wondering  $Q$  she will *by default* not continue wondering  $Q$  until she knows  $Q$ . Intuitively, she voluntarily gives up too readily for her to count as having this disposition. So it looks like WIN is dead in the water.

But I think there's something right about WIN. Something that can be salvaged. As Anscombe (1963) remarked, 'the primitive sign of wanting is trying to get', and often when we explain an agent's actions by saying that they want to know  $Q$ , the agent is indeed trying to get something, e.g. knowledge of  $Q$ 's answer. But sometimes we report that an agent wants to know  $Q$  when in fact they simply want something else, e.g. to form some new opinion or justified belief about  $Q$ 's possible answers. Intuitively, an agent who wants such a belief wants to be in a cognitive state with respect to  $Q$  that is *closer* to knowing  $Q$  than merely having an entirely unsettled stance on it. An agent who has such

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<sup>10</sup>This is the functionalist/dispositionalist conception of desire found, e.g., in Lewis (1972) and Stalnaker (1984). On such accounts, to desire that  $p$  is to be disposed to act so as bring it about that  $p$  in situations where one's beliefs are true.

a desire can be described as wanting to improve her epistemic position on that question. Thus we can call her attitude an *epistemic desire*.<sup>11</sup>

However, there is arguably more to wanting to improve one's epistemic position on  $Q$  than wanting to form some new justified belief in one of  $Q$ 's complete answers. Sometimes one also wants to better *understand*  $Q$ . Compared with belief and knowledge, understanding has received less explicit philosophical attention. Work done on knowledge, belief, and especially explanation has absorbed attention that might have been given to understanding as such, though there are some notable exceptions.<sup>12</sup> One debate has been about whether understanding is a form of knowledge, e.g. knowledge how, knowledge why, or knowledge of causes or explanations.<sup>13</sup> But my concerns are orthogonal to this. Because whether or not genuine understanding can or should be understood as a form of knowledge - - and so perhaps a form of belief - it is at least a kind of epistemic achievement. So, I think we can agree that someone who gains understanding that they previously lacked has made an epistemic improvement, either by gaining knowledge of some sort or by improving their *ability* to gain knowledge about the question by exercising their rational faculties of reflection, speculation, and inference.

What, then, does it mean to understand a question, i.e. to understand the kind of semantic entity expressed by interrogative phrases? By analogy with understanding a proposition - which involves knowing its truth and/or warranted assertibility conditions, and thus knowing what logical relations it stands in to other propositions - understanding a question plausibly involves knowledge of what would or could answer it. That is, understanding a question involves knowing its *answerhood* conditions, in which are grounded its various semantic relations to other questions.<sup>14</sup> Since some answers are only partial answers, knowing the answerhood conditions of a question will involve knowing its partial answerhood conditions too, allowing that even questions whose complete answers may be beyond one's current ability to explicitly think about can still be at least partially understood.

For example, during poker, one's understanding of the question *which card did my opponent draw* might involve knowing that possible complete answers to this include, e.g., that *she drew the ace of spades*, that a partial answer would be, e.g., that *she drew either the ace of spades or the queen of hearts*, that any answer to it would (contextually) entail an answer to the question of *should I*

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<sup>11</sup>See Falbo (2022), who introduces and deploys this broader class of epistemic desires (though doesn't name them as such) to argue persuasively against the claim that the aim of inquiring into  $Q$  is to come to know  $Q$  so that the aim of inquiry is knowledge. Sometimes inquirers merely want a new belief, e.g. when knowledge is impossible. And sometimes inquirers want more than just knowledge, e.g. certainty, as in the case of double-checking. See (pp.10-12) See also Friedman (2019a,b) as background.

<sup>12</sup>See Baumberger *et al* 2017, for a useful overview of philosophical positions on understanding.

<sup>13</sup>See Zagzebski (2001), Kvanvig (2003), and Grimm (2006) for more detailed discussion of whether understanding is a form of knowledge.

<sup>14</sup>See Lewis (1988) for a general introduction to thinking about questions *mereologically*, revealing these inter-question dependencies more clearly. See also Ciardelli (2016), (2022; ch.2) for a more thoroughly developed formal apparatus for representing such dependencies.

*raise, call, or fold*, and so on. To know that such relations obtain between a question,  $Q$ , and the propositions that answer it, as well as between  $Q$  and other questions and their answers, is to possess at least some understanding of  $Q$ .

Sometimes we want to improve our understanding of a question, often because doing so facilitates answering it. Or, if we already know an answer to a question, improving our understanding of that question further can be a means to improve the quality of our knowledge, e.g. by achieving greater levels of rational confidence in the answer we know. Thus, I might know that my opponent didn't draw the king of diamonds, but I understand the question of *which card did my opponent draw* better when I know what does or doesn't follow from this answer, and thus what other questions depend on it.

Whether understanding is better theorized as a form of knowledge or as a knowledge-enabling ability to notice and avail of dependencies among propositions, objects, subject matters, or questions, the achievement of understanding is still epistemic in the sense that having it facilitates knowledge and justified belief.<sup>15</sup> So we should also include wanting to understand  $Q$  as an instance of a  $Q$ -directed epistemic desire. In particular, the desire to understand will be of special importance in what's to come in section 4, below.

As the arguments against WIN and OWK show, having a  $Q$ -directed epistemic desire does not automatically suffice for wondering  $Q$ . To paraphrase Friedman again, there are many questions on which I presently want to improve my epistemic position – for example, questions about the origin of the universe – but which I am not currently thinking about or actively trying to answer or better understand. Hence, although I right now do want to improve my epistemic position on these questions, I am not *ipso facto* wondering about these questions. And if those desires should become occurrent then, again, they still don't suffice for wondering. Easy modifications to Rushed Exam make that clear. Thus, wondering  $Q$  is not merely a matter of having some  $Q$ -directed epistemic desire.

But is having a  $Q$ -directed epistemic desire at least necessary for wondering  $Q$ ? I think it is. We should accept:

**Want to improve (WTI)**

If  $S$  wonders  $Q$ , then  $S$  wants to improve her epistemic position on  $Q$ .

Before offering more positive reasons for this, note that Drucker's idle wondering case, while plausibly a counterexample to WIN, and so to WTK and OWK, does not as plausibly undermine WTI. Returning to the idle wondering case, it strikes me as far-fetched that even an idle wonderer lacks *any* disposition to improve her epistemic position on the questions she wonders about. After all, Drucker's own example shows such improvements: the agent wondering what the etymology of 'power' is explicitly considers and entertains possibilities that bear upon this question. She recalls and is disposed to acquire evidence pertaining to the etymology of 'power' by comparing the word with similar words of various

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<sup>15</sup>See Zagzebski (2001) for a non-propositional theory of understanding.

origins. The result may not seem like much, but having considered possible answers to one’s question and sorted through and appraised one’s evidence to determine what it says about those answers is still an epistemic improvement. Indeed, what this seems to amount to, at minimum, is that one has a disposition to improve one’s *understanding* of the question, a disposition to improve one’s grasp of various logico-semantic dependence relations that hold between the question of what the etymology of ‘power’ is and its possible answers, as well as between it and other questions, such as *whether an -er ending is evidence of Germanic etymology*.<sup>16</sup> Thus, while idly wondering *Q* seems not to necessitate any disposition to come to *know* a complete answer to *Q*, it does seem to require a disposition to at least improve one’s epistemic position on *Q*, e.g. by better understanding *Q*.

In effect, Drucker’s idle wondering case appeals to our intuitive verdict about an agent’s cognitive activities and dispositions in cases where it seems clear that these activities and dispositions don’t characterize a tendency to come to know the answer to the question being wondered. From this we are to conclude that the agent lacks the desire to know. My point is that the very same cases, and the activities and dispositions they involve, actually support the attribution of at least some epistemic desires to idle wonderers. It’s just that these need not specifically be desires to *know*. Hence, unlike WIN, WTI isn’t decisively threatened by idle wondering. Nevertheless, in my introduction I flagged another objection to the claim that wondering entails having propositional attitudes towards a question’s possible answers; I turn now to addressing it.

### 3 Metacognition and radical answer ignorance

Arguments offered by Friedman (2013) help set the stage for a question-centered approach to epistemology.<sup>17</sup> But some of Friedman’s observations are in tension with the claim that having an epistemic desire directed at *Q* is necessary for wondering *Q*. Thus they are in tension with WTI. But before dealing Friedman’s objections directly, some brief preparatory work is needed.

*Prima facie*, wanting to improve one’s epistemic position on *Q*, might seem to be a type of merely propositional attitude.<sup>18</sup> Wanting to know is a combina-

<sup>16</sup>For discussion of understanding that emphasizes grasp or knowledge of dependency relations see Kim (1994) and Grimm (2017).

<sup>17</sup>See also her 2019 and 2020. For the Hintikka heritage of Friedman’s project, see Hintikka (1989,1999). See also Thorstad (2021) for some critical development of Friedman’s program. It is perhaps worth noting that, contrary to Friedman, Hintikka often describes questions as they arise in inquiry as partly definable in terms of their ‘desideratum’, where this is the epistemic state the agent posing the question wishes to be in. For Hintikka, the inquisitive role of questions is partly constituted by an epistemic desire, and so the possibility of inquiring or wondering without at least wanting to improve one’s epistemic position is ruled out (See 1999 pp. 71-2, and 2007 pp. 69-70, 89-90).

<sup>18</sup>Falbo (2022, see p. 11), explicitly permits this propositional reading of some inquiring attitudes, but flags that her aim is not to exactly delineate domain of questioning versus non-questioning attitudes. Instead, she makes a plausible case that some inquiring attitudes aren’t clearly question-directed in the way that other attitudes are, e.g. wondering. I think



tion of desire and knowledge. Wanting to form justified beliefs is a combination of desire and belief. And wanting to understand  $Q$  might well be a combination of desire and knowledge too (e.g. knowledge how or knowledge why). Consequently, wanting to improve one's epistemic position on  $Q$  might seem to be a *metacognitive* attitude type.

Informally, metacognition is described as 'thinking about thinking', thus issuing in thoughts that are about thoughts, or attitudes directed at propositions that are themselves about attitudes. For example, someone who wants to know something has an attitude (in this case a desire) that is about her own attitudes (in this case her knowledge). Likewise for other epistemic desires. This would be a problem if we wanted to attribute attitudes like curiosity to creatures who we think lack metacognition.<sup>19</sup>

Furthermore, a  $Q$ -directed epistemic desire, like wanting to know, seems to be about  $Q$ 's possible answers, since what is wanted is that one know one of these answers. But what if there are scenarios where we can wonder  $Q$  yet be so radically ignorant about  $Q$  that we lack the knowledge or concepts required for our thoughts to be about any of its answers? On Friedman's view, such cases tell us that wondering can occur even in the absence of any corresponding epistemic desire. But I think the WTI advocate needn't worry about these issues, neither that epistemic desires are incompatible with radical answer ignorance nor that they imply a problematic form of metacognition.

Regarding metacognition, I will try to make good on a suggestion of Drucker's that we treat desires to know and their ilk *de re*.<sup>20</sup> By quantifying into sentence position, we can read epistemic desire reports such as *S wants to know Q* as attributing attitudes to  $S$  whose contents need not include the concepts we ourselves use to specify them.<sup>21</sup> But some account is needed of how such *de re* content is supposed to work.<sup>22</sup>

There have been various proposals about how to understand desires *de re*. A critical survey of three possible views can be found in Markie and Patrick (1990). One of these views, which they argue can best suit various desiderata both for a theory of *de re* desire and belief is inspired by Perry (1979). This is what they call the 'singular proposition-mental states theory', which takes a *de re* desire to consist in a three-place relation relating an individual, a singular proposition,

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this is correct, though much more needs to be said.

<sup>19</sup>Attributing questioning attitudes to explain inquisitive behavior in non- or pre-linguistic creatures is something I think we should want to do. See Carruthers (2018) for discussion of such behaviour in non-linguistic animals.

<sup>20</sup>2022 p.67 n 21

<sup>21</sup>There is some motivation for resisting this to various degrees. The claim that *how* an agent represents the world is a function of that agent's concepts is widely held, defended notably by Peacocke (1992) and McDowell (1994) among others. But the expression 'how an agent represents the world' is ambiguous, between *how the world is represented by the agent as being* (i.e. what the agent represents as being the case) and *by what means the agent represents the world* (i.e. what enables the representation to take place). Naturally, the assumption that we can specify attitudinal content without using or mentioning the concepts possessed by the attitude bearer fares better when we focus on the second disambiguation.

<sup>22</sup>I am grateful to an anonymous referee for *Philosophical Quarterly* for pushing me to say more about this.

and a (functionally individuated) mental state.  $S$ 's *de re* desire that  $p$  is thus a relation from  $S$  to a singular proposition and a particular mental state that picks out that proposition.  $S$  desires *de re* that  $p$  only if  $S$  is in a mental state that corresponds to or represents  $p$ . This mental state might be thought of as the way in which  $S$  is representing  $p$  to herself, but it is crucial to note that on this view there need be no explicitly stored symbolic representational item akin to a sentence in a language of thought or a constituent of such a sentence.<sup>23</sup>

On this conception, what  $S$ 's having a *de re* desire to know  $Q$  amounts to is that  $S$  has this mental state, functionally individuated as a desire, that represents the singular proposition that  $S$  knows an answer to  $Q$ . In part, the proposition is singular because it is directly about  $S$ , i.e.  $S$  features in the proposition directly and not because  $S$  is conceptualized in any particular way. I see no reason to deny that having singular thoughts that are *de re* about the bearer of those thoughts is something that conceptually unsophisticated creatures can manage. An organism believing that it is in pain, for example, need not be conceptualizing itself in any particular way; it might feature directly in its own belief as the bearer or focal point of the sensation.

But, does having a *de re* desire that is, in particular, a desire to know require any especially sophisticated conceptual abilities, e.g. the concept of knowledge? Again, I do not believe so. The constituent  $x$  knows  $Q$  in the singular proposition can also feature directly, just as  $S$  does, without mediation by any (or at least any *particular*) concepts of knowledge or of the question  $Q$ . Here, then, is a more detailed example of how this approach to *de re* desire can apply in the case of a  $Q$ -directed epistemic desire:

***De Re* Desire to Know (DRD)**

$S$  desires *de re* to know  $Q$  just if (i)  $S$  has a functionally individuated mental state,  $m$ , where  $m$  represents the singular proposition  $p$ , and  $p = \langle S, x \text{ knows } Q \rangle$ , and (ii)  $S$  is disposed to act in ways that tend to bring it about that  $p$  in situations where  $S$ 's beliefs are true.

On part (i) of this account, the question  $Q$  features as a component of the singular proposition that  $S$ 's mental state corresponds to or represents. Recall that  $\ulcorner S$  knows  $Q \urcorner$  means

$$\exists p(S \text{ knows that } (p \text{ and } A(p, Q)))$$

In other words, there is a proposition that  $S$  knows *as* an answer to  $Q$ . So the states that satisfy  $S$ 's desire are precisely the ones in which  $S$  knows propositions that are answers to  $Q$  specifically. In this way,  $Q$  individuates the mental state, i.e.  $m$  is about  $Q$  insofar as  $m$  is about  $S$ 's relation to  $Q$ 's answers and not to the answers of some distinct  $Q'$ <sup>24</sup>

<sup>23</sup>Markie and Patrick (pp. 443-5) do consider an account that appeals to explicit language-like representations, but in the context of their discussion they do not offer any decisive reasons to prefer it.

<sup>24</sup>Structured propositions might seem like the wrong sort of semantic entities to postulate as the contents of the attitudes of creatures with different or less sophisticated concepts. This

On my proposal,  $m$  is functionally individuated. Crudely speaking, it is what it does. Less crudely we can also say that it is what it has been *selected* to do. Since  $m$  is a desire, it represents and encodes information about its satisfaction conditions. Papineau’s (1993) ‘desire first’ teleosemantic account of mental content offers one way to unpack this: the content of a desire, given by its satisfaction conditions, is the ‘effect which it is the desire’s biological purpose to produce’<sup>25</sup>. In the case of  $Q$ -directed epistemic desires, those effects are knowledge of, justified belief in, better understanding of and, in general, *improved epistemic positions on  $Q$* . Again, as far as I can see, this way of understanding desire does not automatically incur any implausible commitments to the conceptual sophistication of the agent. Thus I take it to be a plausible way forward for attributing epistemic desires to less conceptually sophisticated wonderers.<sup>26</sup>

Nevertheless, DRD clearly interprets ‘wanting to know  $Q$ ’ propositionally, i.e. as being about possible propositional answers to  $Q$ . And the same goes for WTI when it too is given the *de re* treatment. According to DRD, a desire to know  $Q$  is an attitude directed at a proposition whose content is that the agent bears a further attitude towards some answer to  $Q$ . The content of the attitude of wanting to know  $Q$  is thus itself partly constituted by possible answers to  $Q$ . And the same will be true of other epistemic desires.

This residue of propositionalism leads us to Friedman’s second concern, that you can apparently wonder  $Q$  even if, due to radical ignorance or conceptual impoverishment, you have no way of representing  $Q$ ’s possible answers. Here is how Freidman puts the issue:

...that a subject cannot meet the representational burden of any of a question’s possible answers does not mean that she won’t be able to meet the representational burden of the question itself... think of a question as an open proposition, e.g.,  $x$  caused the Big Bang ( $Q$ ). Any possible answer to  $Q$  will be that open proposition except with the variable replaced with a possible cause of the Big Bang. But then grasping a possible answer to  $Q$  requires conceptual resources that go beyond those required for grasping just the question itself... This opens up the possibility of cases in which subjects cannot have thoughts about any possible answers to some question, but can nonetheless grasp the question itself. (p.162)

If wanting to know  $Q$  or indeed having any  $Q$ -directed epistemic desire requires

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is because – as explained by Stalnaker (1998), structured propositions build into attitudinal content a structure associated with the recursive procedures of semantic evaluation. Even in the Russellian version of structured propositions, this might be taken as a residue of “conceptualism” insofar as it is fine-grained enough to distinguish between necessarily equivalent propositions. Since it won’t affect my arguments much, you can revise DRD accordingly and replace the structured content  $\langle S, x \text{ knows } Q \rangle$  with the unstructured content:  $\{w : S \text{ knows } Q \text{ in } w\}$ .

<sup>25</sup>*Ibid.* p.58

<sup>26</sup>See Carruthers (2021) and Carruthers and Williams (2022) for discussion and defence of this sort of conceptually innocent metacognition.

being in a mental state that represents  $Q$ 's possible answers, then Friedman's case of Radical Answer Ignorance suggests that one can wonder  $Q$  without having a  $Q$ -directed epistemic desire. If this suggestion were right, the link between wondering and epistemic desires would be cut; having the latter would not be a necessary condition for engaging in the former.

But Radical Answer Ignorance as Friedman presents it does not sever the link between wondering and epistemic desires. For one thing, as in my response to idle wondering in the previous section, any satisfactory story about wondering owes us some account of what an agent wondering  $Q$  is *doing*. Wondering is an attitude and an activity, after all. As an attitude, wondering has content, namely the question being wondered, and as an activity it is also something we do, taking both time and effort. A good account of wondering should tell us about both of these - what the content of the attitude of wondering is and what sort of activity wondering consists in. If the content of radically ignorant wondering is a question, as Friedman insists - and as I agree - we still have to determine the activity. What is it that the radically ignorant wonderer is doing with this question?

Presumably, when an agent wonders, she is not just subvocally repeating some interrogative over and over again in her head. That's not wondering. Moreover, even if she is in a state of conceptual poverty with respect to some question, this can't to consider even some of its *partial* answers. That way lies madness. For at the very least anyone wondering  $Q$  must know that its answers are consistent with what they already know. We know, for example, that any complete answer to the question of what caused the big bang needs to be consistent with what we already know about the universe, e.g. that there was once a bang and that it was big. But that in itself tells us something about the possible complete answers to the question, and so offers a partial answer to it. We know that, whatever caused the big bang, it wasn't something whose occurrence is incompatible with what we already know about the universe. This is fairly meagre of course. But that's okay, because I don't think wondering is quite so demanding as Friedman's Radical Answer Ignorance would suggest. At the very least, if an agent wondering  $Q$  is not even representing and attending in thought to some of its possible partial answers, then it seems utterly mysterious what they are supposed to be doing while wondering.

This 'lightweight' picture of wondering, on which one can wonder  $Q$  despite lacking the conceptual requirements necessary to explicitly consider its *complete* possible answers, is fairly tempting. What is not tempting, though, is an extension of this picture to allow for the possibility of wondering  $Q$  without representing even partial possible answers. In particular, wanting to *understand*  $Q$  - an attitude that characterizes thinking about  $Q$  in its logico-semantic relations to one's evidence and to other possible questions - suggests that even a radically ignorant wonderer can be in an attitudinal state representing at least *some* possible answers to  $Q$ . It's just that these will be at most partial answers. If I am incapable of representing even possible *partial* answers to a question, then how can I wonder it? How can I be said to grasp the question in any way if I have no idea what would even partially answer it?

In addition, beyond characterizing and explaining our tendency to explicitly attend to possible partial answers to the questions we wonder about, epistemic desires can play a further explanatory role. This is because there are cases in which radical answer ignorance not only fails to rule out WTI, as informed by DRD, but which actually seem to require it. Consider this one:

#### **Aristotle's Wonder**

Suppose Aristotle knows that the cosmos originated with a first cause. Thus Aristotle knows a partial answer to the question of what the origin of the cosmos was. But he isn't satisfied with this partial answer; there's more work to do in fleshing it out. Thus he wonders what the nature of the first cause was. Intuitively, in wondering about this, Aristotle is trying to extend his knowledge of the same question - what the origin of the cosmos was - which is something he knows a little, but not a lot, about.

In the fifth-century B.C.E. Aristotle cannot meet the representational burden of considering whether, say, the first cause was a quantum fluctuation in the void. But if, by some miracle, someone were to come and explain contemporary cosmology to him, would we expect him to deny that the cosmos's originating in a quantum fluctuation is a possible answer to what he has been wondering about? Would we expect him to insist that, since he wasn't originally in a position to explicitly think about that possible answer and meet the conceptual burden of representing it in conscious thought, that it therefore cannot be a possible answer to his question? I think not. Instead, the natural conclusion is that, although he wasn't in a position to know it explicitly or consider it consciously in thought, Aristotle was indeed wondering about something answerable by quantum mechanics. His question, the very question he was wondering twenty-four centuries ago, was one with answers he couldn't imagine at the time. And yet he was still wondering it; those answers were among the things he wanted to know about.

At first blush, it might seem hard to credit a theory on which one's thoughts can be about things one cannot explicitly consider. But that is exactly what cases like Aristotle's Wonder seem to suggest: that although our concepts may change or become more refined, so that the way we think about our questions changes, the questions themselves can remain the same. Having whatever possible answers they do, we pose and wonder about questions partly with an eye to how we revise our own understanding of them. And it is here that epistemic desires come into play.

What the Aristotle example suggests to me is that one's initial desire to know  $Q$  can be satisfied by coming to know answers one couldn't previously have imagined. When it comes to curiosity, then, our reach sometimes exceeds our grasp. It is in part Aristotle's questions that the possibilities discussed in modern cosmology are addressed, meaning that there was something about Aristotle, about his mental states, his wondering, all those years ago that was about those possibilities. Clearly his thoughts at the time were not *explicitly* about quantum mechanics. He wasn't explicitly attending to the subject matter

of quantum mechanics when he posed cosmological questions the way he was explicitly attending to subject matters like form, god, or causation. And yet there was something about his wondering, something non-explicit, that was about quantum mechanics. About it insofar as his wondering could have been resolved, or at least appropriately addressed, by an answer given in its terms. Radical Answer Ignorance doesn't prevent us having propositional attitudes with contents of which we are, in Friedman's sense, radically ignorant.

To do justice to these intuitions, we need to account for something in wondering that explains how we succeed in wondering  $Q$  even when we cannot explicitly represent all of  $Q$ 's possible answers to ourselves. This is a role that epistemic desires can play. Recall that WTI need only commit us to a *de re* conception of epistemic desires. Hence, as per DRD, it is a mental state with satisfaction conditions that do not depend on what the desiring agent can explicitly conceptualize or represent to themselves, but only on the functional role of the state itself. The idea is that the satisfaction conditions of epistemic desires can track contents ('reaching out' to possible answers) that are inaccessible to the explicit thoughts of their bearers - an idea that should seem no more unusual in philosophy than that of referential opacity.

However, if WTI is false, so that having epistemic desires isn't a necessary part of what it is to wonder, then it's not clear what can account for the fact that our wondering can be about possibilities we cannot explicitly consider. In other words, to account for the intuition that presently inconceivable or unconsidered possibilities can be the answers to the questions we wonder about, we need to postulate attitudes like epistemic desires whose contents are independent of the concepts possessed by the wonderer. I claim that the combination of WTI and DRD can meet this need.

## 4 Guiding mechanisms and the desire to understand

So far, I have argued that considerations of Idle Wondering, metacognition, and Radical Answer Ignorance are insufficient to show that one can wonder  $Q$  without having an epistemic desire about  $Q$ . On the contrary, I have argued that the content of such desires can actually explain the fact - presented in the Aristotle example - that our wondering can be about possible answers that we may be unable to conceptualize or explicitly consider at a given moment. In this final section, I want to consider another perspective on which wondering is taken to occur in the absence of epistemic desires. This perspective comes from a proposal due to Drucker (2022) who, instead of incorporating epistemic desires, appeals to the notion of *guiding mechanisms*, i.e. mechanisms whose selected evolutionary function is to direct the considering of a wondering agent, but which aren't themselves supposed to be desires.

Drucker grants that wondering is an end-directed activity, noting that we sometimes think that 'when a creature engaged in an activity is guided by a

certain end, the creature must desire that end.’ (p.72) However, he continues:

...the guidance-desire link is simply false. Many animal activities are guided by ends that the animals don’t explicitly represent to themselves in desire. Playing, for example, might teach cubs how to be good hunters, but they don’t play with the desire of being a good hunter later. When I say the play is guided by the end of being a good hunter, I mean that, for example, the specific forms the play takes will tend over time to make them better hunters... An agent’s desire for the end of an activity is not the only way the activity can [be guided by] that end. Natural-selective processes might have ensured that animals pursue given activities with the end - the function - of making them better hunters, etc. (*Ibid.*)

I call this idea of Drucker’s, on which mechanisms guide some process or activity without there being any corresponding desired end *non-desiderative guiding*. And I think we can readily agree that there is such a thing. For example, the evolutionary function that guides the behavior of the digestive system is to provide nutrients to the body. Thus, the function of the digestive system is nutrition. But the question before us here is whether this sort of guiding mechanism, as it specifically applies to wondering, should be thought of as a form of *desire*. Drucker thinks it shouldn’t. And yet, as my account of *de re* epistemic desires and the Aristotle example in the previous section should make clear, we need not subscribe to a conception of desire on which one cannot desire something without explicitly representing it to oneself in desire, as Drucker mentions.

Thanks to DRD, I agree with Drucker that wondering is an activity guided by ends that wonderers sometimes ‘don’t explicitly represent to themselves in desire’. After all, not all desires are explicit in this sense. That is precisely the utility of the *de re* view: a wonderer can be guided by desires whose satisfaction conditions (ends) aren’t explicitly represented as such. Those desires are mental states that represent their ends – implicitly or “procedurally” as is sometimes said – by virtue of having the satisfaction conditions they do.

By itself, this could make it seem like any dispute about whether wondering requires epistemic desires or whether it requires only naturally selected guiding mechanisms would be a merely verbal one. Pending a richer discussion of desire in this connection, I think this would be a fair assessment; what Drucker would call the non-desiderative guiding mechanisms of wondering I would call *de re* epistemic desires. But there are further observations that can help clear things up. To begin with, here is Drucker’s positive account of wondering:

### **Druckerian Wondering**

‘*S* wonders *Q* [iff] *S* considers sufficiently many of *Q*’s potential answers,  $p_1 \dots p_n$ , as answers to *Q*, which considering is guided by mechanisms whose function is to make *S* epistemically better off with respect to at least some of the  $p_i$ ’s and ceases when (among

other possible terminating conditions) S is consciously certain that some  $p_i$  is the complete and exhaustive answer to  $Q$ .(p.78)<sup>27</sup>

This account has a lot to recommend it. The inclusion of considering captures the active and essentially occurrent character of wondering. And the inclusion of a guiding mechanism that can function independently of what the agent explicitly considers speaks to the Aristotle-style case I introduced previously. Such mechanisms could explain how Aristotle’s wondering about the origins of the cosmos is somehow about (or directed at) possible answers he cannot imagine. It is the mechanism, we can say, that is tracking such possibilities and not the explicit considerations of the wonderer. Nonetheless, I think the operation of such guiding mechanisms on considering doesn’t always suffice for wondering. Hence, in some cases, I think we have reason to reject the right-to-left direction of Druckerian Wondering.

Recall the scenario in Plato’s *Meno* of Socrates supposedly demonstrating that an uneducated slave boy possesses knowledge that he has not acquired during his earthly life. A common complaint against here is that the knowledge the boy seems to manifest is actually just the product of Socrates’s promptings. ‘The slave boy isn’t demonstrating *a priori* knowledge of geometry’, we might complain, ‘he’s just thinking in line with Socrates’s loaded questions.’ But cases in which a teacher directs the attention and considering of a student in order to get them to learn something bear directly upon Druckerian Wondering.

In the *Meno* case, it is intuitively correct to say that Socrates’s questioning is guiding the boy to consider various possibilities. Furthermore, it seems clear that the function of Socrates’s questioning, as an instance of the naturally selected social behavior of *teaching*, is to make the boy epistemically better off with respect to the question at hand (the question of how to construct a square with twice the area of a given square). This way of thinking about the function of Socrates’s questioning fits with the Millikan (1984) style account of functions that Drucker applies in his appeal to guiding mechanisms. This account let’s us say that the function of the questioning is to produce an epistemic improvement (i.e. to teach), because the reason such questioning occurs in the first place is that it tends to produce such improvements.<sup>28</sup>

The position that tempts me here is, first, to note that there clearly is some cognitive activity going on that resembles wondering on the part of the slave boy in the *Meno*. But, second, it also seems that this cognitive activity is not sufficiently “sourced” in the boy himself. Socrates is not wondering how to construct the square, after all. And yet, in prompting various considerations, he is doing much of the work that we would ordinarily expect to be done by the boy himself if he were the one doing the wondering. The boy is certainly con-

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<sup>27</sup>This is Drucker’s own statement of the view almost verbatim. He uses ‘=’ instead of ‘iff’ suggesting that wondering and structured considering are identical. Having ‘iff’ is thus technically weaker than Drucker’s claim. But Drucker’s ‘=’ version entails it.

<sup>28</sup>The version of the account of functions Drucker deploys is that the function of  $S$ ’s feature  $F$  is to  $\phi$  just if  $S$  has  $F$  because  $F$   $\phi$ ’s. Thus we can say that the function of Socrates’s questioning behavior is to produce epistemic improvement since this behavior arises because it tends to produce such improvements.



sidering the possibilities Socrates suggests, and doing so eventually does make him epistemically better off with respect to the question of how to construct the square. But clearly, to some degree at least, the boy is participating in this lesson *passively*, merely noting or acknowledging for each considered possibility that it is as Socrates says it is. A key question here, then, is what the difference is between wondering  $Q$  and having a certain number of possible answers to  $Q$  brought to your consideration by some process or mechanism whose naturally selected function is to improve your epistemic position on  $Q$ .

The *Meno* case provides a template for worthwhile refinements to Druckerian Wondering. The boy considers sufficiently many of the possible answers to the questions put to him, and his doing so is guided by a mechanism (Socrates's teaching) whose function is to make him epistemically better off on that question. But some of the crucial 'wondering work' has been outsourced. Socrates is doing the cognitive heavy lifting characteristic of wondering. What the boy is doing is more like the cognitive equivalent of nodding along. In other words, it's not clear that what the boy is doing while considering and accepting the possibilities Socrates presents is an activity he is undertaking in the right way for it to count as wondering.

Let's sharpen this intuition with a slightly different imaginary case, one that addresses the possible requirement that the guiding mechanism of wondering has to be "internal" to the wonderer, rather than external in the way Socrates's questioning is:

#### **The Socrates Pill**

Sophisticated nanotechnologies with biomedical and entertainment applications have been invented, resulting in pills that can make you hear your favourite music and audiobooks playing in your head, and that can occasion all sorts of such experiences related to subject matters of your choosing. At a party, a mischievous friend slips one of the latest products into your drink. Thus, while enjoying your beverage, out of nowhere a voice bubbles up inside your head: 'What is justice?' And then: 'Is justice whatever is desired by the mighty?' Again, this is followed by: 'No, for justice cannot be wicked', followed by: 'is justice then giving to each what is theirs?', followed by another refutation. And so on.

With this example, my angle, of course, is that the victim of the Socratic spiking is not wondering what the nature of justice is. They're just enduring a mechanical procedure of forced considering that is brought on by the pill. The intuition I'm pumping is that this sort of passive enduring of forced considering, one that *de facto* improves one's epistemic position on some  $Q$ , does not amount to wondering  $Q$ . If you share this intuition, then you will be tempted to think that Druckerian Wondering misses out on something distinctive about wondering.

What a wonderer is doing isn't merely attending to possible answers to some question in such a way that tends to make her epistemically better off on that question. Attending, considering, and even learning can be involuntary –

sometimes we simply have to avoid situations (e.g. spoilers) in which certain information will come to light. We sometimes shut our eyes and cover our ears to avoid involuntarily learning the answers to some questions, especially when the function of whatever mechanism is bringing those answers to light is to improve our epistemic position on that question (e.g. by telling us prematurely how the story ends). So we might naturally think that the key difference between wondering and structured considering is that, in the former, the agent is considering possible answers to  $Q$  because she actually *wants* to improve her epistemic position on  $Q$ , and so the presence of a  $Q$ -directed epistemic desire is required. But this is only *partly* right.<sup>29</sup>

Note that an agent could take the Socrates pill deliberately, inducing the sort of considering that tends to improve her epistemic position on  $Q$  in a quasi-mechanical fashion in order to achieve epistemic improvement as a desired end. More prosaically, a tired or unenthusiastic student who nevertheless *does* want to improve on  $Q$  could participate halfheartedly in a lesson, considering in a shallow way the various possible answers brought to her attention by her teacher, nodding along passively. In both such cases, the agent would have a  $Q$ -directed epistemic desire that leads her to consider sufficiently many of  $Q$ 's answers. And the Millikan-style function of the guiding behaviors or mechanisms that she engages with – the Socratic teaching and the operations of the nano-pill – is indeed epistemic improvement, since these mechanisms behave as they do (through natural or artificial selection) because they tend to produce this result.

Nonetheless, the agent undergoing the experiences induced by such mechanisms is not the one deriving, generating, or “coming up with” the considerations in a way that is characteristic of wondering. Furthermore, she needn't be thinking through the proffered possible answers. That is, she needn't be relating them to her background knowledge, seeing how they tally with other possibilities and questions that she is also aware of. She is *considering* the possible answers, yes, but in a shallow acknowledging way that lacks the activity characteristic of wondering. Hence, a final question is this: what exactly is the manner of *considering* at work in wondering? That is, in what *way* does an agent need to be considering possible answers to  $Q$  for this sort of activity to be characteristic of wondering?

On this, Drucker does offer some specification, but the result is confusing. On the nature of considering, we are told that when a wonderer considers an answer ‘[t]he answers don't simply cross their minds, but rather the wonderer might deduce consequences ... and test those consequences against their other beliefs and thereby the answer they're considering.’ In other words, as Drucker uses the term, ‘when one considers  $p$ , one entertains  $p$  in an evaluative way, that is, in a way that tests it for truth or at least plausibility.’<sup>30</sup> What I find confusing here is that Drucker construes considering as *already* involving much of what

<sup>29</sup>I am indebted and very grateful to a reviewer for *Philosophical Quarterly* for pushing me to consider this further.

<sup>30</sup>See p.76. This kind of considering is what Kriegel (2013) calls ‘engaged entertaining’. Kriegel is a good source for exploring the phenomenology of entertaining as a mental state that seems irreducible to the belief-desire duopoly of the functionalist paradigm (pp.5-8).

we'd ordinarily call wondering, independently of any additional mechanisms we might cite as guiding it. If 'considering  $p$ ' in Drucker's sense means evaluating  $p$ 's plausibility, then what is the difference between considering  $p$  and wondering whether  $p$  is plausible? And, in terms of the activity that wondering consists in, what is the difference between wondering whether  $p$  is plausible and just wondering whether  $p$ ?

Does Druckerian considering already involve some mechanism that guides the evaluative activity essential to it? Or is the latter something that applies in addition to considering, as per Druckerian Wondering? Currently, I don't see a way to disentangle evaluative considering from an attentional activity that is already guided by epistemic ends, in which case the exact explanatory work of the guiding mechanism is not entirely clear. But I will set this aside and press on with what I take to be essential to the considering.

Intuitively, when we say that the wonderer is the one "coming up with" the possibilities she considers, rather than being fed them by some external source, we're noting that wondering involves a certain kind of cognitive effort. Presumably, this is something that undergirds our assessments of instances of wondering as more or less rational, depending on the balance between the cost of such effort and the expected benefits of making an epistemic improvement on its basis. For example, when navigating to some remote location a group of hikers might get slightly lost and wonder how to get to their intended destination. Then, after spending time assessing what they know about the terrain, considering various possibilities in the light of the directions they were given, they conclude that they're not making enough progress in figuring it out. So they decide it would be better if they simply ask some passerby or – more likely these days – if they google it. At that point, I think they have stopped doing something that is characteristic of wondering.

When an agent wonders  $Q$ , some type of mental state or attitude is tokened that has  $Q$  as part of its content. This is Drucker's *considering as*, which implies attending to  $Q$  by attending to possibilities *qua* answers to  $Q$ . This much I think has to be right. But we can say more. Because what seems to be involved in wondering is a form of considering that both exercises and improves the wonderer's *grasp* of  $Q$ . That's to say, it is only by deploying her understanding, however implicit, of the constitutively necessary relations that obtain among  $Q$ , its possible answers, and other evidentially relevant questions and their answers that an agent succeeds in considering possibilities *qua* answers to  $Q$  in the manner required for wondering. The form of considering that occurs in wondering  $Q$ , then, is a manifestation of the wonderer's understanding of  $Q$ , i.e. of its answerhood conditions and of the various logico-semantic relations that obtain among its possible answers and that obtain between it and other questions.<sup>31</sup>

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<sup>31</sup>See Hoek (forthcoming), for a view on which beliefs are structured and interrelated as answers to questions, so that questions and the evidentially supplemented logico-semantic relations among them form a 'weblike' structure that explains the rationality of doxastic states in terms of how the questions these beliefs answer relate to each other in the web. As Hoek's approach emphasizes, much of this structure among questions can be understood

To illustrate, the lost hikers might note that if there is a river nearby on their left, then they are to the east of their intended destination. So, given their background information about the terrain, they know that one possible partial answer to the question of *where their intended destination is* (i.e. that it is to the east) is contextually entailed by a possible complete answer to the question of *whether there is a river nearby on the left*. In other words, one way for them to consider the possibility that their intended destination is to the east, *as* an answer to their question of *where their intended destination is*, is for them to relate this possibility to other questions whose answers bear upon it given their current evidence. Considering a proposition *as* a possible answer to their question is thus a matter of thinking about that possibility in relation to that question and its other possible answers, and in relation to other questions and their possible answers as well.

When the tired student considers possible answers to  $Q$  proffered by her instructor, she considers these *as* answers to  $Q$ , relating them to  $Q$  to the point of at least recognising them as possible answers to  $Q$ . But, in her tiredness, what she is *not* doing is thinking about these possibilities in much depth. Though she has to at least process the possibilities being offered for her consideration in some minimal way – enough to note that they are in fact answers and perhaps that they are not glaringly implausible – this minimal exercise in comprehension is not tantamount to understanding how such possibilities might have been brought into consideration in the first place, nor to integrating or connecting them much with her other beliefs and knowledge. What she is doing is more akin to acknowledging or *checking* the possibilities offered to her than it is to deriving or *generating* them on the basis of her understanding of the question.

It is of course beyond the scope of my present aims to say what exactly ‘generating’ means here. Nevertheless, one *prima facie* difference between checking and generating is the amount of effort required. Generating is *harder* than checking. So a plausible candidate for explaining the difference between checking and generating – and thus between guided considering and wondering – is that in the latter case the greater effort involved can be explained in terms of a difference in epistemic desire.

The tired student and the Socratic pill taker both act out of an occurrent epistemic desire, motivating them to consider the possibilities brought to their attention by the teacher and the pill respectively, i.e. the “mechanisms” guiding them to epistemic improvement. But their considering of these possibilities, even *as* answers to their questions, is less involved than the considering of someone who, on the basis of their understanding of the question, is generating these possibilities for themselves. I think this more effortful sort of *considering as* that happens when an agent wonders can then be explained by attributing to her a greater motivation towards a particular kind of epistemic improvement, that is, a stronger desire to *understand*.

Here is another analogy: suppose you’ve momentarily lost your phone. Thankfully, your helpful friend is nearby, and she says she will search for it and find

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*mereologically*, à la Lewis (1988)

it for you. When she does, you can either gratefully acknowledge the find and proceed with whatever task you needed the phone for, or you can also ask your friend where she found it. Doing the latter is a way of achieving something more than merely getting the phone back, it is gaining knowledge of where it was, and so of how it could have come to be there. What you are doing then is something like mentally *reconstructing* your friend's search in such a way that you can better understand the situation, that is, in such a way that you can know more about how or why the search successfully resulted in the find.

Clearly, I think that the difference between considering  $p$  qua answer to  $Q$  in a passive 'checking' way versus considering it in an active 'generating' way is similar to this difference between finding something as a result of someone bringing it to you versus finding it as the result of a search you have undertaken. The merely guided considerer might retroactively try to reconstruct a process that could have led her guiding mechanism to produce the answer it did, but in doing so she is not wondering whether the proffered answer is correct; the mechanism already convinces her of that; that is its function. Rather she is doing something like wondering *why this answer is the correct one* or at least *why this answer makes sense*. In the phone search case, whether the search is undertaken personally, or is something that you reconstruct after asking your helpful friend where she found it, there is a desire to know how or why, i.e. a desire to understand, in addition to a desire merely to find the phone.

Those of us who have ever had to search for our mislaid belongings without someone helpfully showing up to do it for us might feel that what we really want in such cases is just to find the damned thing. Yet, faced with no other option but to search for ourselves, we desire the necessary means to that end. That is, we desire to look for the lost object, which is a desire to find it in a way that furnishes us with additional knowledge or understanding once we find it (where it was, how it could have gotten there etc). We come by such understanding all the time, perhaps begrudgingly, perhaps without appreciating it as such. But doing so, I claim, is a necessary consequence of 'finding by searching', as opposed to 'finding by proxy' – in the helpful friend case – or indeed 'finding by luck' – in any case where we discover something haphazardly. In this specific way, the considerations attended to by the merely guided considerer are like such lucky finds.

A lucky find may be brought to an agent's attention while the agent is off searching in the wrong place. Or when the agent is not searching at all. But, I claim, the way they come to light differs from cases where they are found by successful searching. And this difference is analogous to that between the prompted considerations of guiding mechanisms and the understanding-based considerations that constitute wondering. More specifically, just as lucky finds need not be a manifestation of the agent's desire to find by searching, prompted considerations from a guiding mechanism need not be a manifestation of an agent's desire to understand. The considering of the tired student isn't a manifestation of a particularly strong desire to understand – she's too tired for that. And for the deliberate nano-pill taker, although by subjecting herself to a knowledge-producing mechanism she is clearly acting out of a desire to *know*

an answer, she isn't thereby manifesting a desire to understand.

I am not saying that an instance of merely guided considering, as opposed to wondering, must only involve relevant epistemic desires that are weaker than those manifested as wondering. That isn't the case, since someone might take the Socrates pill, attend to a teacher, or google an answer because she *really* wants to know the answer but doesn't want to bother wondering the question. What I *am* saying is that in cases where an agent is considering sufficiently many answers to  $Q$  in a way that is guided by a Drucker-style mechanism, but is also doing so in a way that is too passive to count as wondering – too much like checking and not enough like generating – then the relevant difference in the two kinds of considering at work is plausibly a difference between the strength of at least one kind of epistemic desire, one that is always present in wondering but not necessarily in guided considering. This, I think, is the desire to *understand*,

As noted in section 2 above, understanding has widely been taken to involve a capacity to apprehend or 'grasp' relations of dependence, either among causes and effects, among objects, situations, questions, subject matters, or among propositional contents.<sup>32</sup> Described as such, there is no immediate reason to think that non-linguistic creatures cannot possess understanding, nor indeed that without sophisticated concepts they cannot undergo desire-like states whose function is to signal facts about their lack of understanding and the positive value of attaining it.<sup>33</sup>

Certainly, the ways in which linguistic creatures like us demonstrate awareness of the dependence relations that are grasped in understanding differ from those that manifest among non-linguistic creatures. But it seems like a mistake to deny that such creatures demonstrate an ability to detect and avail of these dependence relations, both in learning and in intelligent behavior generally. A lack of any linguistically enriched or reflective form of understanding doesn't rule out understanding altogether.<sup>34</sup> Consequently, once *understanding* has been explicated as involving a capacity to detect, gain familiarity with, and obtain awareness and knowledge of dependence relations among (*inter alia*) questions and answers, the desire for understanding can be understood as nothing more exalted than the desire to attain this new kind of facility with, or awareness or knowledge of such dependencies.

What distinguishes wondering from merely guided considering then is that, in the former, the kind of considering that takes place is a manifestation of the desire to understand, a desire that needn't be present in the latter. That is, the epistemic desire present in wondering is not merely to know that  $p$  is the answer to  $Q$ , but to know how  $p$ 's being an answer to  $Q$  depends upon and coheres

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<sup>32</sup>See Kim (1994), Zagzebski (2001) Baumberger *et al* (2017), and Grimm (2017), among others.

<sup>33</sup>For more on evaluative learning as an instance of conceptually innocent metacognition, see Carruthers (2021), Carruthers and Williams (2022)

<sup>34</sup>There is, moreover, a nice antecedent in manipulationist theories of causation and explanation for thinking about understanding, not in terms of a conceptually demanding capacity to explicitly entertain symbolically stored representations of the target domain of understanding, but as a skillful ability to intervene upon, interact with, and, in general, intelligently *manipulate* the target domain. Cf. Woodward (2003)

with our knowledge of other questions and their answers. This difference is crucial, I think, in making sense of how the merely guided considerer is at most “checking” or acknowledging the answers her guiding mechanism provides, as opposed to deriving or “generating” these answers based on her understanding of the question. The tired student and the deliberate nano-pill taker both want to know, but they fail to wonder because their cognitive activity, their considering, is not best characterized and explained by a desire to understand.

Finally, you might hold out that often a question just occurs to us, and instead of going on to think about it in the way I’ve described, we just immediately check an available answer source. The question *what time is it?* might suddenly occur to you. And immediately, reflexively, you might check your watch and so learn the answer. Was this an episode of wondering what time it is? I am committed to saying no. The ability to attend to the question, however briefly, and the ability to act appropriately so as to find out the answer is not the same as wondering that question, though these abilities are clearly involved when we do wonder. Checking an answer upon being prompted to do so is not the same as wondering. Of course, if something unexpected happens, such as realizing you’ve forgotten to wear your watch, then typically you will start to wonder what time it is. But before that, you were merely acting upon an occurrent desire to know.

## 5 Concluding remarks

When we wonder  $Q$ , we manifest in thought a sensitivity to various dependence relations holding between  $Q$ , its possible answers, and other questions and answers that, given our background evidence, also stand in such dependence relations to  $Q$ . This is just to say, that when we wonder  $Q$ , we manifest an understanding of  $Q$ . Often, perhaps typically, the main motivation we have for wondering  $Q$  is that we want to improve on  $Q$  just in the sense of knowing its answer, or having some new justified belief about it. *De facto*, however, even in such cases, wondering  $Q$  both relies upon and disposes us to improve our *understanding* of  $Q$ . Even if all we report ourselves as wanting is to know  $Q$ ’s answer, and so would readily stop wondering if we had some question-answering mechanism to hand, when wondering we are, as a matter of fact, disposed to improve our understanding of  $Q$ . Without the cognitive activity of considering possibilities and related questions in this way, we do not wonder.

Thus, wondering is in part constituted by an epistemic desire, the desire to better understand the question we are wondering about. Often we do not or cannot explicitly entertain the various dependencies that understanding grasps. But, on the *de re* account of desire I have proposed here, this is no barrier to wanting to understand. The lesson, I think, is not just that wondering requires wanting, it is that, one of the things we are doing when we wonder is trying to better understand our own questions.

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