

Social Epistemology and Knowing-How

Yuri Cath

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(eds.) Jennifer Lackey & Aidan McGlynn

In textbooks one often finds a distinction between three kinds of knowledge: knowing-that, knowing-how, and acquaintance knowledge. However, while these three forms of knowledge are well-known, epistemologists have traditionally focused almost exclusively on questions to do with knowing-that. Indeed, in the textbooks, the usual rationale given for mentioning the distinction at all is just to ensure that knowing-that is not confused with these other things one might call ‘knowledge’, and then the rest of the book proceeds to merrily devote itself solely to questions concerning knowing-that.¹ And, not surprisingly, similar tendencies can be found in social epistemology.

In recent years, however, these tendencies have begun to weaken somewhat. In particular, there has been a lot of new work on knowing-how, stimulated by Stanley and Williamson’s (2001) arguments for the intellectualist view that knowing-how is a species of knowing-that. The primary focus of this work has been on debates about the nature of knowing-how and debates between intellectualists and their anti-intellectualist opponents. But the literature on these issues has also started to include work dealing explicitly with the social dimensions of knowing-how. This chapter reviews some of the key developments in this area, focusing on discussions of the social function of the concept of knowing-how, testimony, demonstrating one’s knowledge to other people, and epistemic injustice.² I will also try to identify some ideas

¹ As well as knowing-how ascriptions, there are also many other knowledge ascriptions where the complement of ‘knows’ is an embedded question, for example, one can know when, where, what, and why. But with respect to these other forms of knowledge, and in contrast to knowing-how, it is more widely accepted that they can be analysed in terms of knowing-that (specifically, knowing some proposition that answers the embedded question). See fn.7 and section §4 below for related discussion.

² One notable issue I will not cover (for reasons of thematic unity and space) is recent discussions of group know-how. The main focus in these works is on various issues concerning the relationships between group know-how and the cognitive states and abilities of the members of that group. Bird (2010), for example, argues that a group can know how to Φ without any of its members knowing how to Φ , as they each only know how to perform different parts of that total action of Φ -ing (see also Dragos 2019 for further discussion of this point). Palermos and Tollefsen (2018) and Birch (2019) provide arguments against different ways of trying to analyse group or joint know-how in terms of the propositional knowledge (or other propositional attitudes) of the members of the group, as well as their own positive analyses of group know-how. Habgood-Coote (2019b) provides an account of group knowledge on which a collective can know the answer to a question in virtue of its members knowing

that can help to unify various phenomena discussed within this literature, and I will discuss how these ideas might connect with debates concerning moral knowledge and testimony.

1. The Social Role of KNOWS-HOW

Craig (1990) famously advocates for a shift in how we approach epistemological inquiry. Craig thinks that such theorizing normally proceeds by collecting intuitions about the intension and extension of the concept of knowledge (or ‘KNOWS’)³ and then trying to provide analyses of the concept that fit those intuitions. In contrast, his suggestion is that we, first, identify plausible hypotheses about the basic human needs served by KNOWS (or that an ancestor of this concept would serve in an imagined ‘state of nature’), and then attempt to develop analyses of the concept that fit with those hypotheses, as well as our intuitions about the intension and extension of KNOWS.

Craig’s famous hypothesis about the function of KNOWS is that it serves our basic human need, as inquirers, “to flag approved sources of information” (1990, 11). If I want to know whether *p* is true it makes sense for me not only to rely on my own ‘on board’ sources for generating true beliefs (faculties of perception and reason), but also to seek access to the beliefs of other people formed via their ‘on board’ sources. If *p* is the proposition that there is a wolf north of the village, and I have not ventured that way myself for some time, then it may be in my interest to seek information about whether *p* is true from others who have been in that area recently. But given that I am not in a position to directly assess whether *p* is true myself, and given that people can lie and mislead, I have an interest in identifying people who are reliable informants about such matters. And Craig claims that it is this core human interest that our concept of knowledge serves.⁴

Craig’s hypothesis has struck many philosophers as being very promising, at least when applied to knowledge-that (the knowledge one has when one knows *that* something is the case). But can it be extended to knowledge-how (the knowledge one has when one knows *how to* perform an action)? Craig tries to accommodate the concept of knowing-how (or ‘KNOWS-HOW’) within his framework by (i) suggesting that the concept serves our need as *apprentices* (i.e., a person

different parts of that full answer, a view which is much more friendly to an intellectualist view of group know-how. Dragos (2019) defends the idea that groups can possess know-how from an objection which appeals to the notion of *epistemic extension*. Dragos argues in reply that, unlike knowing-that, knowing-how cannot be epistemically extended.

³ I will use small caps like this when referring to concepts.

⁴ See Chapter [] in this volume for related discussion.

who wants to learn how to perform some action Φ) to seek out teachers who can either tell us or show us how to perform some action, and (ii) noting various connections between reliable teachers and reliable informants, and between possessing information and possessing abilities. This allows Craig to see the roles of the inquirer and the apprentice as being closely related. Habgood-Coote (2019a: 6-7) usefully suggests that we see this connection in terms of our social needs to pool resources that can serve as preconditions for action, with the inquirer's perspective related to our need to acquire information from other people, and the apprentice's perspective being tied to our need to pool capacities/abilities from other people.

But, as Hawley (2011) pointed out in an influential discussion, there seems to be another important—and, arguably, more central—role played by KNOWS-HOW related to the perspective of what she calls the *client*. The client does not seek knowledge-how for themselves but only seeks someone who can reliably perform the relevant action for them:

When I seek a plumber, hairdresser, or architect, usually this is because I need the drains fixed, my hair cut, or a building designed. I need have no interest in learning how to do these things myself, nor in finding someone who can either teach or assess others. Perhaps I know how to do such things already but am too busy or too lazy to get them done myself (and I can't reach to cut my own hair). I call this 'the client's situation,' in contrast with the inquirer's and the apprentice's situations. (Hawley 2011: 287)

Similarly, Moore (1997: 173-174) in an earlier discussion (pre-dating the post Stanley and Williamson literature on know-how) writes:

On [Craig's] conception there is something basic about situations in which one wants to acquire some information, or a skill, and one is looking for reliable instruction. I wonder. Is there not something yet more basic about situations in which one is looking, not for someone who is a reliable instructor, but just for someone who is reliable? Suppose I need someone who knows how to fix the plumbing. I am probably not the least bit interested in acquiring the skill myself.

Hawley and Moore focus on situations where someone wants to find someone else to perform all of an action for them but, as Habgood-Coote (2019a: 8) notes, the client may also be seeking someone else to help perform an action with them together. For this reason, Habgood-Coote characterises the idea here as the claim that the function of KNOWS-HOW is to serve our interests in identifying reliable collaborators.

The suggestion then is that a key function of KNOWS-HOW is to serve our interests in identifying people who can reliably perform actions for or with us. This idea can, arguably, shed light on

many interesting features of knowing-how, including helping us to understand the source of notable objections to intellectualism based on the idea that knowing-how does not share one or more of the epistemic properties of knowing-that (e.g., Carter and Pritchard 2015, Cath 2011, Poston 2009, Setiya 2008).

So, for example, Cath (2011) presents three supposed counterexamples, each of which relies on a case where, intuitively, knowing-how is present despite one of three standard conditions for the presence of knowing-that being absent—the anti-luck, justified belief, and belief conditions, respectively. The common thread in these examples is that each subject is still in a state that would reliably guide them in successful performances of the relevant action. And, as Levy (2014) discusses, Hawley’s concept of the client might help to explain why such a subject would still possess knowledge-how:

In developing this theme, [Hawley] illuminates the feature of knowledge how to which Cath had pointed: its seeming resistance to being undermined by the kinds of factors that undermine knowledge that. Hawley calls these kinds of factors, on which both mainstream epistemologists and those concerned with testimonial reliability (like Fricker) have focused, upstream indicators of reliability. These indicators are available only to third persons who occupy a privileged position with regard to the agent and to those who assess her testimony: was she lucky in acquiring it? Is she justified in believing it? By contrast downstream indicators of reliability are the kinds most relevant to knowledge how, and are often accessible to agents who seek to learn from or to take advantage of the expertise of those who putatively possess knowledge how. These indicators show up in performance guided by knowledge how, which even novices are often able to distinguish from action that is not so guided.

The idea from Hawley that Levy is discussing here is that when we ascribe knowledge-how we often do so on the basis of ‘downstream’ indicators, that is, indicators that the subject is in a state that would reliably guide in them in possible future actions of Φ -ing—where the relevant indicators of that would be successful performances of Φ -ing. This contrasts with ascriptions of knowledge-that where typically ‘upstream’ indicators are much more important, that is, indicators that the subject is in a true belief state, where these indicators might include things like “being in the right place to see what was going on or, more generally, having a reliable method for acquiring beliefs in that sort of area” (Hawley 2011: 292).

In the case of knowing-that, it is standard to go a step further, of course, and try to define the nature of knowledge-that itself in terms of related upstream conditions that a true belief has to

meet for it to constitute a genuine state of knowledge.⁵ Hawley and Levy, following Craig, focus on the upstream conditions found in reliabilist and virtue accounts of knowledge, like whether one's true belief was the product of a reliable belief forming faculty or ability. But the point applies much more widely,⁶ for internalist analyses also appeal to upstream conditions about how one's true belief was formed, e.g., whether the belief forming process was suitably related to (internally accessible) evidence or reasons.

On the other hand, given the importance of downstream indicators for ascribing knowing-how we might speculate that downstream/forward-looking conditions should also feature in an analysis of knowing-how. And, if this is the case, then, in line with Levy's remarks, we might be able to shed some light on why subjects possess knowledge-how in the kinds of cases provided by Cath (2011) and other related arguments. For in each of these cases the subject is still in a state that would reliably guide them in intentional actions of Φ -ing if they were to try to Φ . In which case, if being in a state which has these downstream action-guiding properties is sufficient for knowing how to Φ then we have an explanation of why knowing-how is present in these kinds of cases.

If we assume that this distinction—between the upstream conditions required to possess knowing-that versus the downstream conditions required to possess knowing-how—does hold then that assumption might be used in an argument for a Rylean view of knowing-how, according to which knowing how to Φ is a kind of ability or disposition to Φ , as opposed to any kind of knowledge-that. For one can certainly possess the ability to Φ even if the upstream story of how one acquired one's relevant beliefs about how to Φ includes the fact that they

⁵ A knowledge-first epistemologist will deny that knowledge can be analysed as a special kind of true belief that meets such upstream conditions. But, nonetheless, knowledge-first epistemologists still agree that knowledge is subject to many of the same kinds of upstream conditions that other epistemologists endorse, they just deny that these conditions can be properly explicated without making reference again to knowledge at some point. That said, as one of the editors for this volume reminded me, it is also true that knowledge-first epistemologists often claim that knowledge is subject to various conditions that look to be downstream conditions, e.g., that one knows that p only if one is warranted in asserting p or relying upon the truth of p in one's practical reasoning. This is an interesting complication for the distinctions I will draw in this section between upstream versus downstream knowledge, but one that I cannot explore on this occasion. My inclination is to suggest that some downstream conditions on knowledge (e.g., being a state that can guide actions of making warranted assertions) may have the interesting feature that one cannot satisfy these downstream conditions without also satisfying certain upstream conditions (of the kind found in familiar analyses of knowledge-that) whilst still maintaining that many of the wider set of downstream conditions we are interested in when we ascribe knowledge (being a state that can guide all kinds of other actions) do not have this feature. On this approach upstream/theoretical knowledge would be viewed as a special case of the more general category of downstream/practical knowledge.

⁶ As Hookway (2006: 105) says the “features that have been taken to be characteristic of knowledge have been backward-looking: they have concerned the history of the candidate belief or the kind of justification that the believer (already) possesses for it”.

were obtained in a Gettier-style scenario, or that one ignored undefeated defeaters for that belief, etc.

However, one can also acknowledge this distinction within a broadly intellectualist framework according to which knowing-how is some kind of propositional attitude state. Cath (2015), for example, offers a view on which there are two different kinds of knowledge-that “practical” and “theoretical”. Both kinds of knowledge require true belief but the further conditions that upgrade a state of true belief into genuine knowledge differ, with theoretical knowledge requiring the kinds of upstream conditions found in standard analyses of knowledge, and practical knowledge-that requiring downstream conditions connected to success in action, and possessing certain action-guiding dispositions when one acts. So, focusing on the kind of propositional knowledge that features in intellectualist analyses of know-how, possessing *practical knowledge* that w is a way for oneself to Φ , is a matter of having a true belief of the right form that can guide one in actions of intentionally Φ -ing. And, on the other hand, possessing *theoretical knowledge* that w is a way for oneself to Φ , is a matter of having a true belief with that content which meets one’s favoured set of upstream conditions.

The general moral here is that both anti-intellectualists and (certain kinds of) intellectualists can accept the idea that knowing how to Φ is practical knowledge in the sense that it can be defined in terms of downstream conditions concerned with successful and guided performances of Φ -ing rather than the familiar upstream conditions on knowing-that; and this is an idea that accords well with Hawley’s insight that the function of KNOWS-HOW is tied to the client’s need to identify reliable performers. In the following two sections, we will see how the downstream/upstream distinction can also help us to understand apparent disanalogies between knowing-how and knowing-that with respect to acquiring knowledge from other people through testimony (§2), and demonstrating one’s knowledge to other people (§3).

2. Testimony and Know-How

With respect to testimony some authors have claimed (Carter and Pritchard 2015, Poston 2016, Poston and Carter 2018) that there is something like the following important difference between knowing-how and knowing-that:

The Difficulty of Transmission thesis (DT) It is more difficult to transmit (practical) knowing-how via testimony than is the case for knowing-that and other forms of knowing-wh.⁷

The insertion of ‘practical’ in (DT) is to indicate that we are restricting our attention only to the form of knowledge attributed by the relevant interpretation of ‘S knows how to Φ ’ ascriptions. Stanley and Williamson (2001) distinguished four different interpretations of such ascriptions, generated by the two different respective readings available for the covert pronoun (as a generic ‘one’ or as anaphoric on the main subject ‘S’), and the infinitival (as a deontic ‘ought’ or a dispositional/ability ‘can’), in the embedded ‘how to’ question. If we take the ascription (1) ‘Stephanie knows how to juggle’, for example, we get the following readings (with underlining and italics used to emphasise the different readings):

- (1a) For some way w , Stephanie knows that w is a way Stephanie *can* juggle.
- (1b) For some way w , Stephanie knows that w is a way one *can* juggle.
- (1c) For some way w , Stephanie knows that w is a way Stephanie *ought* to juggle.
- (1d) For some way w , Stephanie knows that w is a way one *ought* to juggle.

The kind of practical knowledge at stake in the knowing-how debates is widely acknowledged to only be that knowledge ascribed by interpretation (1a), and the claim made by (DT) is only meant to apply to that form of ‘knowing-how’ (likewise for when I use the term ‘knowing-how’ without qualification).

With that clarification in place, some common ideas that might be appealed to in support of (DT) include the idea that knowing-how requires experience and training in a way that knowing-that does not, and that typically when we possess knowing-that we can share this knowledge with other people but the same does not seem to be true of knowing-how. As Hawley (2010: 397) wrote in the first extended discussion of testimony and knowing-how:

⁷ The term ‘knowing-wh’ can cause confusion. Following Parent (2014), Stanley (2011), and others, I use the term in such a way that it *includes* knowing-how, as Parent (2014: 81) says ‘Knowing-wh includes knowing who, knowing what, knowing which, knowing where, knowing why, and knowing how (or “whow” if you’re a stickler)’. More precisely, I use ‘knowing-wh’ as a term for the forms of knowledge attributed by any knowledge ascription where the complement of ‘knows’ is an embedded question, and this is why I say ‘other forms of knowing-wh’ above as it is relatively uncontroversial that ‘S knows how to Φ ’ ascriptions have this structure. On this usage of ‘knowing-wh’ then the debate between intellectualists and anti-intellectualists can be seen as a debate about whether all forms of knowing-wh can be analysed in terms of knowing-that, or whether there is at least one exception. Alternatively, ‘knowing-wh’ is sometimes used as a term for the forms of knowledge denoted by all ‘knows’ plus embedded question constructions *except* for knowing-how ascriptions (e.g., Poston 2016 seems to use the term in this way). I think the inclusive use of ‘knowing-wh’ is more helpful, but nothing of substance hinges on these terminological decisions.

“Practical knowledge can’t always be obtained from books or lectures, since it often requires hands-on experience, whilst those who know how can’t always teach, and sometimes those who can’t do something can nevertheless teach others how to do it.”

Another way to motivate (DT) is to consider the contrast between specific cases where practical knowing-how seems difficult to transmit through testimony with cases where knowing-that seems to be easily transmitted. Carter and Pritchard (2015) give a case where Roger tells David how to play a special guitar riff, and David thereby comes to know that *that* way is a way to play the riff, but he doesn’t yet know how to play the riff because he hasn’t practised the complex finger movements involved in it. Similarly, Poston (2016) relies on the contrast between pairs of inferences like this:

Bad

- (1) Stephanie knows how to juggle.
 - (2) Stephanie tells Hannah how to juggle.
- So, (3) Hannah knows how to juggle.

Good

- (4) Stephanie knows how Ardern will govern.
 - (5) Stephanie tells Hannah how Ardern will govern.
- So, (6) Hannah knows how Ardern will govern

Bad is naturally interpreted as concerning ‘knowing-how’ in the sense that is at issue in the knowing-how debates identified earlier (i.e., the knowledge ascribed by an ‘S knows how to Φ ’ ascription when the infinitival is interpreted as an ability modal and the covert pronoun is interpreted as anaphoric on the main subject). **Good**, however, concerns a form of ‘knowing how’ which even anti-intellectualists are usually happy to grant can be analysed as a kind of knowing-that in the standard way, that is, in terms of knowing some proposition that is a true answer to the embedded question.

As the labels indicate, Poston takes it to be a datum that inferences like **Good** are good inferences and that inferences like **Bad** are not, and indeed, it does seem as if the first inference would be perfectly acceptable in most circumstances and that the latter would be problematic in most circumstances. And, importantly, it seems as if **Bad** would be bad even if we imagine

that the standard conditions conducive to the transmission of knowledge through testimony are all in place.

For Poston this asymmetry points to the fact that (DT) is true which, in turn, he takes to support the conclusion that intellectualism is false. However, there are a number of ideas that an intellectualist might appeal to in resisting Poston's disanalogy argument. To begin with, as Cath (2017) and Peet (2019) point out there are other cases where it seems that knowing-how is easily transmitted. Peet (2019: 895-96), for example, gives the following case:

Sally, a tourist, arrives in a new city, and wants to visit the house of her favourite composer: Wolfgang von Wagner. Sally doesn't know how to find the house. Luckily for her it is a popular tourist destination, and most locals know where it is located. She asks Mark, a passer-by, for directions. Mark knows where the house is located and sincerely tells her "It is the red house on Bond Street". Sally understands and accepts Mark's testimony.

In this scenario if we imagine that Sally knows how to get to Bond Street then it seems clear that she would come to know how to find the house of her favourite composer on the basis of accepting Mark's testimony. And Peet goes on to defend the further claims that (i) the knowledge-how Sally would thereby gain would be knowledge-how in the sense at issue in the knowing-how debates, and (ii) that this new knowledge would be genuinely testimonial knowledge.

Poston is aware of such cases and tries to handle them by analysing them in a way that is consistent with his assumption that (DT) is true. Poston (2016: 870) considers the following case of his own where it might seem that knowing-how is transmitted:

John is an expert fisherman and, among other things, he knows how to tie many different knots. There is a specific knot he has heard about—the Bimini Twist—and he wants to learn how to tie this knot. He asks Sam and Sam tells him how to tie the Bimini Twist. It is plausible that John acquires some new practical knowledge from Sam's testimony. John comes to know for the first time how to tie a Bimini Twist.

Poston claims that the only knowledge transferred in such examples is *deontic* knowing-how-to, that is, the kind of knowledge (1) ascribed to Stephanie when we interpreted it as (1c) or (1d). So, according to Poston, John only comes to know, from Sam's testimony, that the relevant way *w* is a way that one *ought* to tie a Bimini Twist. But then given "his general knot tying practical knowledge John can successfully implement his new propositional knowledge of how one ought to tie the Bimini Twist" (Poston 2016: 870). So, Poston's thinks that all that John gains from Sam's testimony is deontic knowing-how-to, but he can then acquire practical

knowledge of how to tie the Bimini twist by drawing on his new deontic knowledge-how, and his existing practical knowledge-how with respect to tying knots in general.

Peet presents a number of arguments against Poston's diagnosis of this knot case, including an appeal to a variant case where the hearer does not already have any general knot-tying knowing-how but still comes to know how to tie another (simpler) kind of knot via a speaker telling them how to tie it. However, even if knowing-how can sometimes be transmitted easily the significance of that point is unclear. For, as Poston notes (2016: 870), (DT) is consistent with there being *some* cases where practical knowing-how is easily transferred via testimony, as long as it is still more generally true that knowing-how is difficult to transmit.⁸

So, ideally, in responding to arguments like Poston's, an intellectualist will not merely be able to point to cases where knowing-how is easily transmitted. Instead, they will also be able to provide a response to the cases used to motivate (DT) by either: (i) granting that these are cases where it is difficult to transmit knowing-how but then showing us how one can accommodate these cases, and the truth of (DT), within an intellectualist framework; or (ii) contesting the assumption that these are cases where it is difficult to transmit knowing-how, thereby undermining the argument for (DT).

In developing the first kind of reply intellectualist can appeal to the fact that their analyses often stipulate that knowing-how is not merely a matter of knowing a proposition that answers the embedded 'how to Φ ' question, but also meeting some further condition stating that one has to possess that knowledge in some distinctively practical way. The hope then will be that this further condition can illuminate why knowing-how does not easily transmit via testimony. Poston considers an intellectualist reply like this which appeals to Stanley and Williamson's (2001) well-known view that knowing how is not merely a matter of knowing the right kind of proposition, but also knowing that proposition under a *practical mode of presentation* (PMP).⁹

The explanation then of why (DT) is true will be that, while S can come to know a proposition of the form ' w is a way for S to Φ ' via testimony alone, S cannot come to entertain w under a practical mode of presentation via testimony alone. As Hawley (2010: 400) notes, an

⁸ Of course, a parallel point here cuts against Poston's position, that is, one also can't conclusively establish (DT) by merely pointing to some cases where it appears that knowing-how does not transmit easily.

⁹ This notion is introduced by Stanley and Williamson (2001) in response to the simple insufficiency objections to intellectualism that, for example, I can know that *that* way is a way to ride a bicycle (pointing to someone riding a bike in a normal way) without myself knowing how to ride a bicycle. See Stanley (2011) and Pavese (2015, 2020) for different ways of developing the idea of PMPs.

intellectualist who endorses this PMP view can grant that a textbook might enable us to know, of some way w , that w is a way for me to swim whilst also maintaining that reading the textbook “does not enable me to entertain this proposition under a practical mode of presentation; for that, I need to practise”.

A worry with this specific version of response (i) is that the intellectualist’s notion of a PMP has been subjected to a great deal of criticism (see e.g., Glick 2015; Mosdell 2019), and Poston himself offers a number of criticisms of PMPs in defence of his testimony-based objection to intellectualism. It is important then that the intellectualists can defend themselves against testimony-based objections without appealing to PMPs at all. For example, the intellectualist could appeal to other intellectualist analyses—involving ‘further conditions’ other than a PMP condition—in the hope of finding another intellectualist-friendly account of (DT).¹⁰ Or, alternatively, they could give a response of kind (ii) outlined above by contesting the interpretation of the standard cases used to motivate (DT).

Cath (2017) gives a version of this second kind of response by appealing to work by Stanley (2011)¹¹ on how to interpret the modality of the infinitive in the relevant interpretation of ‘Stephanie knows how to juggle’ that we identified earlier. Previously we represented that interpretation like so:

(1a) For some way w , Stephanie knows that w is a way Stephanie can juggle.

However, as Stanley discusses the ability modal in an embedded ‘how to’ question is better interpreted not using a bare ‘can’ ascription but something like a ‘can in normal circumstances’ ascription. That is, the better interpretation of the anaphoric and non-deontic reading of (1) is:

(1a*) For some way w , Stephanie knows that w is a way Stephanie can juggle *in her normal physical state*.

Suppose now Hannah does not already know how to juggle because she has never practised. Stephanie telling her how to juggle will clearly not result then in Hannah’s coming to know how to juggle. But the fact that Hannah has not *acquired* this knowledge-how from Stephanie’s testimony does not show that knowledge-how cannot be *transmitted* via testimony. For the proposition that *Hannah* would have to know in order for her to know how to juggle (in the

¹⁰ See Waights Hickman (2019) and Cath (2020) for different suggestions of how knowing-how could be a matter of knowing a proposition in a distinctively practical way without any appeal to PMPs.

¹¹ Stanley’s discussion builds partly on Hawley’s (2000) idea that knowledge-how is subject to a counterfactual-success condition.

relevant practical sense) is not the same proposition that Stephanie knows when she knows how to juggle. This can be seen by comparing (1a*) above with the corresponding interpretation of (11) ‘Hannah knows how to juggle’:

(11a*) For some way w , Hannah knows that w is a way that Hannah *can juggle in her normal physical state*.

Given that Hannah has never practised juggling, the proposition that she would need to know to make (11a*) true is a *false* proposition, for the standard way of juggling w is *not* a way that Hannah can juggle *in her normal physical state* because she has not developed the required physical dispositions, which can only be acquired through practice. In which case, as knowledge is factive, it is not a proposition that Stephanie can know to be true and so this is *not* a case where Stephanie possesses, but cannot transmit to Hannah, the practical knowledge that *Hannah* would need to possess for her to know how to juggle.

Stepping back from the intellectualist/anti-intlectualist debates we can note how the fact that knowing-how can be at least difficult to *acquire* from testimony can be broadly explained by the ideas discussed in §1. For if knowing-how is a downstream-facing state (the possession of which entails the ability to intentionally Φ in normal circumstances), then it is no surprise that it can sometimes be difficult to acquire from testimony, given the fact that abilities are often difficult to acquire from mere testimony. Words can easily provide us with information, but not abilities or skills.¹²

Intellectualists and anti-intellectualists can agree on these points and then add further details to this initial explanation reflecting their different accounts of knowing-how. So, an intellectualist might appeal to practical modes of presentation to explain why (DT) is true. Or, alternatively, they might appeal to the idea that when knowing how to Φ is a matter of knowing a proposition about your own abilities to explain why knowing-how is difficult to acquire (but not necessarily difficult to transmit) via testimony. And, on the other hand, a Rylean might appeal to the idea

¹² This is not to deny that verbal instructions about how to Φ can play an important role in someone coming to acquire a new ability to Φ or skill at Φ -ing. The point is just that merely grasping such instructions is usually not sufficient for gaining a new ability or skill, as one will also have to practise trying to follow those instructions, and learn from one’s mistakes and successes, etc. See Small (2014) for discussion of the transmission of skills that focuses on the idea of *guided practice*, which he takes to be a joint activity involving both the learner and the teacher. See also Habgood (2018) for an interesting critical discussion of various norms one could put forward claiming that it is permissible to show or demonstrate someone how to Φ only if one knows how to Φ oneself. On the basis of this discussion Habgood concludes that we shouldn’t think of skill learning as involving the transmission of skill from teacher to learner, and he also thinks that the failure of such norms puts pressure on Craig’s inquirer view of the function of KNOWS.

that knowing how to Φ just is some kind of ability or disposition to Φ (as opposed to any kind of knowing-that).

3. Demonstration and Epistemic Injustice

While knowing-how appears to be more difficult to acquire from others via testimony than knowing-that, it may also seem that is easier to *demonstrate* to others that one possesses knowing-how than is the case for knowing-that (Annas 2001, Hawley 2011). That is, it may seem that something like the following thesis is true:

The Ease of Demonstration thesis (ED) It is often easier to *demonstrate* to others that one possesses (practical) knowing-how than is the case for knowing-that.

When I talk of ‘demonstrating’ one’s knowledge what I have in mind is any expression of one’s knowledge in action (including but not limited to speech acts) that serves to convince some audience that one’s possesses that state of knowledge. The claim made by (ED) then is that it is often easier to convince others that one possesses knowing-how through actions that express one’s state of knowledge than is the case for knowing-that.

If Stephanie starts to successfully juggle, for example, it would be very hard for any audience witnessing that action to deny that she knows how to juggle. It is *possible* that her success is just some kind of weird fluke or accident. But accidental actions of successfully juggling are incredibly unlikely events, which is why it would be hard for anyone to actually doubt that Stephanie knows how to juggle upon witnessing her juggling. And this point can hold even if her audience does not know how to juggle themselves. For people are often able to identify successful performances of a given type of action without being able to perform actions of that type themselves (a fact routinely abused by armchair sports fans).

Of course, people can also express their knowledge-that through their actions—both speech acts and other actions—and in many contexts such actions will serve to effectively convince an audience that they possess that knowledge. But, in general, it still seems comparatively easier for such an audience to raise doubts about whether a person really possesses the knowledge-that that they have just expressed in their actions than is the case for when they have expressed their knowledge how to Φ by successfully Φ -ing. And if such doubts become salient to that audience, then the person’s expression of their knowledge-that may fail to demonstrate their knowledge to that audience.

Imagine that Stephanie not only knows how to juggle but she also knows that there is milk in the fridge, and she wants to find out if her housemate Katrina possesses the equivalent two states of knowledge. Stephanie first asks Katrina if she knows whether there is any milk in the fridge, and she responds by correctly asserting that there is. Stephanie then asks Katrina if she knows how to juggle, and she responds by successfully juggling for a good amount of time. Both of Katrina's actions (her speech act and her juggling) would, in many contexts, be effective demonstrations of her respective states of knowledge. However, that point is consistent with also acknowledging that sceptical challenges are easier to raise with respect to Katrina's knowledge that there is milk in the fridge than with respect to her knowledge how to juggle. If Stephanie knows, say, that Katrina tends to form her beliefs about whether there is milk in the fridge on the basis of unreliable testimony from another housemate, or wishful thinking, then Stephanie might still have good reason to doubt that Katrina genuinely knows (rather than merely believes) that there is milk in the fridge, even after Katrina has correctly answered her question. But when it comes to the issue of whether Katrina knows how to juggle the origins of her relevant cognitive states or abilities seem largely irrelevant, what matters is simply whether she has stable dispositions to reliably perform successful actions of juggling, not how she came to have those dispositions.

As with (DT), the status, nature, and significance of this supposed disanalogy between knowing-that and knowing-how are all matters that are open to debate. However, if (ED) is true, then we can note that, again, this apparent disanalogy can be explained well by the downstream versus upstream knowledge distinction. For the kinds of upstream conditions paradigmatically involved in possessing knowledge-that will, by their very nature, tend to be more "distal" and indirectly accessible to an audience than the downstream conditions involved in possessing knowledge-how. Stephanie cannot directly check, for example, what conditions were in place when Katrina formed her belief about the milk given that the event of Katrina forming that belief is now in the past. In which case, doubts about whether the right kinds of upstream conditions were satisfied at the time will tend to be comparatively easier to raise, and harder to dismiss. This is because, on the other hand, there is often much less wiggle room for denying that someone is in a state that will reliably guide them in intentional actions of Φ -ing after directly witnessing them perform an action of Φ -ing, especially when the relevant type of action is one that is difficult to 'fluke' like juggling.

Furthermore, if (ED) is true this might have interesting implications for other issues beyond the knowing-how debates. For example, Annas (2001) argues that Mackie's moral scepticism

is implausible, in part, by appealing to (i) the claim that moral knowledge is practical knowledge,¹³ and (ii) the claim that scepticism about practical knowledge is implausible, in support of (iii) the claim that moral knowledge is possible. As Annas (2001: 247) writes:

When I mess up the computer, find a leak under the sink, or find that the car will not start, I take my problems to the relevant experts. They are practical experts; I want not a theoretical computer whiz, but someone to fix the software, not a Ph.D. in engineering, but someone who can stop the leak, fix the oil gauge, and so on. Serious scepticism about the existence of practical experts of this kind does not get off the ground. (This is a major reason why discussions of moral knowledge in ancient ethics are not structured by skeptical concerns.) I may wonder whether my plumber is really an expert, but there is something deeply wrong about the idea that I might hesitate to call *anyone* listed under "Plumbers" in the Yellow Pages to fix my leaking pipe, on the grounds of doubt as to whether there was such a thing as *knowledge* of plumbing.

Annas does not actually explain why scepticism about the existence of practical expertise and knowledge “does not get off the ground”. But it seems plausible that the idea Annas is implicitly appealing to here is something like (ET), as (ET) explains why it would be so hard to deny that the computer expert knows how to fix the computer after they successfully get it running again, or to deny that the plumber knows how to fix the leak after they stop the leak, etc.

And, closer to the themes we have been focused on, Hawley (2011) discusses how (ED) might make a difference to how knowing-how interacts with the phenomenon of *epistemic injustice* (Fricker 2007), which is an injustice where someone is harmed specifically in their capacity as a knower.¹⁴ One way in which you can be so harmed, is if your capacity to possess and share knowledge is not recognised by others, due to prejudicial beliefs that they have about a group that one is a member of. In particular, Fricker focuses on *testimonial injustice* where a hearer unfairly gives a deflated level of credibility to a speaker’s testimony because the hearer accepts a prejudicial stereotype which associates members of the relevant group with the property of lacking the relevant kind of knowledge, and/or the property of being deceitful. So, for example, an Indigenous man in Sydney telling a police officer that he was running to catch a bus and not running from a crime,¹⁵ may have his testimony dismissed unfairly due to the officer’s

¹³ See Kotzee (2016) for an interesting discussion which draws on Annas’ work on practical knowledge, and also Craig’s work on the function of KNOWS, in arguing for a virtue-based account of knowledge-how.

¹⁴ See Chapter [] in this volume for a more in-depth discussion of epistemic injustice.

¹⁵ This is an adaption of a case reported in the *Sydney Morning Herald* and discussed by Ngo (2017: 113).

acceptance of a prejudicial stereotype that Indigenous men are prone to criminality or dishonesty.

Can similar cases arise for knowing-how? Suppose Miriama, who knows how to solve a certain math problem, tells her classmate Harry how to solve it by describing the steps involved. But Harry does not give due credibility to Miriama's testimony, and thus fails to recognise her knowledge-how, due to his prejudiced belief that women are not as good at math, and his inability to grasp that what Miriama has just described is a solution. In those circumstances, we can say that Harry has not only harmed Miriama in her capacity as a knower, but specifically in her capacity as a possessor of knowledge-how. So, it seems clear that there can be cases of testimonial injustice for knowing-how that parallel the standard cases for knowing-that.

However, the considerations which support (ED) also suggest that there is still a way in which it can often be comparatively more difficult for even a prejudiced audience to fail to recognise a subject's knowing-how in situations like this. Suppose, for example, that Miriama solves the math problem right in front of Harry on the whiteboard, *and* that he has the ability to see straightaway that it is a solution. In those circumstances, it may be very difficult for Harry to sincerely deny that Miriama knows how to solve the problem, even given his prejudicial beliefs. Hawley (2011: 297) explains this kind of point by appealing to her notion of the client:

[I]n many cases, a client can recognize good work, regardless of whether she possesses the relevant knowledge how. In such cases, there is no scope for honesty or dishonesty, only good or bad work. Again, in such cases, this limits the scope for distinctively epistemic injustice in the client's relationship with the practitioner.

These points will plausibly apply to many cases but, again as Hawley (2011) discusses, we have to be careful not to overstate their significance. For, in other cases, prejudicial stereotypes clearly can lead to an audience to make unfair judgments about: (i) whether the relevant action of Φ -ing really was performed at all (e.g., when the audience is not competent to identify successful performance of Φ -ing they may concede that the performer knows how to do *that* but deny that *that* is an action of Φ -ing), (ii) whether the performer's success is a result of underlying know-how instead of mere luck, or (iii) how well the action was performed and, by extension, whether they not only know how to Φ but whether they know how to Φ *sufficiently well*. For example, Hawley (2011) discusses Goldin and Rouse's (2000) findings that, after moving to anonymised selection processes, orchestras had a significant increase in the number of women selected. This suggests that, prior to the anonymisation, the selection process was a case of (iii), with gender prejudices unfairly affecting the selection panel's judgments of

whether the female musicians knew how to play the relevant pieces up to the required standards.

4. Extensions and Connections

Until now I have, for ease of discussion, been ignoring the fact that the distinction between upstream/theoretical versus downstream/practical knowledge likely extends beyond, and cross-cuts with, the distinction between knowing-how and knowing-that (for related discussion see Glick 2011: 427–428). It is very plausible that, *paradigmatically*, knowledge-that ascriptions track upstream knowledge and knowing-how-to ascriptions track downstream knowledge. But that is consistent with there being some cases where the reverse is true, for both knowing-that and knowing-how. And there do seem to be cases for knowing-that, and other forms of knowing-wh, where the relevant knowledge ascription is still, intuitively, correct even though the subject is in a Gettier-style situation, or their belief is not justified. In particular, Hawthorne (2000, 2002) presented a number of influential cases like this in support of the conclusion that in “many contexts, Gettierized true belief *is* knowledge” (2000: 203), and that in such contexts “the *point* of asking knowledge questions is to ask whether someone possesses the information” (2002: 254).

I think the right lesson to draw from such cases is that an interest in whether someone has downstream knowledge (that is, a state of true belief which can guide them in successfully performing some relevant action) can sometimes dominate when we make ascriptions of knowledge other than just ‘S knows how to Φ ’ ascriptions.¹⁶ In Hawthorne’s cases, the subject typically has a true belief—that, say, Boston is the capital of Massachusetts (Hawthorne 2000: 202-203) or that Vienna is the capital of Austria (2002: 253-254)—which fails to satisfy the upstream conditions associated with the inquirer’s concept of knowledge because it was obtained in a Gettier-like situation. But, in these cases, the relevant true belief state is still naturally interpreted as being one which meets the downstream conditions associated with the client’s perspective, with respect to certain abilities made salient in that context like simply being able to correctly answer the relevant “What is the capital of X?” question.

How these different interests—in whether people have upstream versus downstream knowledge—interact, respectively, with the semantics and pragmatics of knowledge

¹⁶ See Cath (2015: 22-23) and Stanley (2011: 180-181) for different takes on the significance of these cases in relation to the knowing-how debates.

ascriptions is an important question.¹⁷ But whatever the right answers are to that question, we will still be confronted with the fact that our knowledge ascribing practices are (in one way or another) tracking what appear to be two importantly different kinds of states. And, once this point is acknowledged, I think we can start to see how the notion of downstream/practical knowledge, and the associated perspective of the client, might help to illuminate debates about other forms of knowledge. I want to close by briefly sketching one set of possible connections with discussions of moral knowledge and also wisdom.

It is plausible that much of moral knowledge is, in some sense, a kind of practical knowledge. As Annas (2001: 247) writes, “Moral knowledge is, after all, practical knowledge, whatever account we give of this; it is knowledge of what to do, and results, often, in doing something”. Similarly, Sayre-McCord (1996: 137) writes, “Moral knowledge, to the extent that anyone has it, is as much a matter of knowing *how*—how to act, react, and feel appropriately—as it is a matter of knowing *that*—that injustice is wrong, courage is valuable, and care is due.”

It is not surprising then that for many claims made about the nature of knowing-how we can find closely parallel claims made about the nature of moral knowledge. In particular, in discussions of moral testimony one can find all of the following claims which closely parallel claims made about knowing-how: (i) moral knowledge or understanding can be present even in Gettier-type scenarios or in scenarios where the relevant belief is not justified (Hills 2009), (ii) knowing-that does not suffice for moral knowledge (Hopkins 2007 on moral knowing-why) or understanding (Hills 2009 on moral understanding-why), (iii) that some forms of moral knowledge or understanding cannot easily be acquired via testimony (Driver 2013, Hills 2009, Hopkins 2007), and (iv) that moral knowledge or understanding entails the possession of certain abilities (Hopkins 2007, Hills 2009).¹⁸ Similarly, in the literature on wisdom one can

¹⁷ Stanley (2011: 180-181) appeals to Hawthorne’s work to support the conclusion that judgments that a knowledge ascription is true in these kinds of cases (where the subject has a true belief that lacks the standard upstream conditions associated with knowledge-that) only reflect the pragmatics of uttering such ascriptions and not their semantics. But Hawthorne (2003: 254) himself is much more cautious, noting that there are other options here including that the reverse is true (i.e., that it could be our judgments that knowledge ascriptions require more than true belief that stem from merely pragmatic factors), that ‘knows’ is ambiguous, or a contextualist semantics. And many other options could also be added to Hawthorne’s list, including that ‘knows’ is polysemous or semantically underdetermined.

¹⁸ Hills (2009: 104) cites the close connections between moral understanding-why and abilities as a reason to think that there are “interesting similarities between moral understanding and knowing-how”. Hills does not identify the further similarity that understanding and knowing-how can both appear to be resistant to epistemic luck, but her claim about the ability connection comes just after Hills has claimed that moral understanding is distinct from propositional knowledge on the grounds that understanding why *p* has a different relation to epistemic luck than knowing why *p*. Hills (2009: 105) also suggests that if Stanley and Williamson’s (2001) arguments for intellectualism succeed they might be extended to understanding-why, although Hills argues that even if that were

find claims that wisdom cannot be transmitted via testimony (Ryan 2016: 242), and entails the possession of certain abilities (Whitcomb 2011: 97).

One explanation for these parallels would be that the relevant forms of moral knowledge either are explicitly forms of knowing-how (as in Sayre-McCord's examples above), or can be analysed in terms of knowing-how when that is not the case. And in the literature on wisdom, it is common to see the suggestion that wisdom can be analysed (at least partly) in terms of knowing how to live well (Grimm 2015, Ryan 1996, 1999).¹⁹ That idea seems promising to me, but I suspect that one cannot analyse all forms of moral knowledge or understanding (like knowing or understanding *why* an action is wrong, or knowing *what* to do in an ethical situation, etc.) in terms of 'S knows how to Φ ' ascriptions per se (in part simply because that would not fit well with the standard question-answer semantics for knowing-wh ascriptions). However, once we acknowledge that the category of downstream/practical knowledge extends beyond knowledge-how, a more promising approach would be to claim that when we ascribe moral knowledge to people, we are often interested in identifying them as people who possess a form of downstream knowledge.

So, for example, following Hopkins (2007: 630) and Hills (2009: 102-3), when we say that someone knows or understands why, say, eating meat is wrong (Hills 2009), the idea would be that we are often primarily interested in identifying them as someone who possesses a kind of downstream knowledge which grounds a set of relevant abilities. Following suggestions by Hopkins and especially Hills, the relevant abilities might include the subject being able to offer explanations as to why eating meat is wrong, to infer that it is wrong from a set of relevant considerations, and to do be able to do the same for other distinct but relevantly similar moral questions that they haven't considered yet. And, given that being in the right kind of action-guiding state is *sufficient* for possessing downstream knowledge, we can then explain why someone can possess this moral knowledge/understanding even when they are in a Gettier situation or when their relevant beliefs are not justified. For one can be in a state which grounds those abilities even if that state was formed in a Gettier-style situation. And, given that being in a state which grounds those abilities is *necessary* for possessing downstream knowledge, we

the case it would not matter for her position because even Stanley and Williamson acknowledge that knowing-how may be a species of propositional knowledge with its own distinctive properties.

¹⁹ See Chapter [] in this volume for discussion of this idea.

can also explain why testimony cannot easily deliver moral knowledge/understanding. For abilities and skills are not easily acquired through testimony.

My remarks here are obviously very preliminary. But I think they at least indicate how the idea that moral knowledge is a form of downstream/practical knowledge might be useful for helping us to understand many of the features of moral knowledge (or understanding) discussed in the literature on moral testimony. Furthermore, this idea might help us to see these features not as some peculiar quirk of moral knowledge, but rather as part of a broader pattern involving other non-moral forms of practical knowledge. When we seek out someone for their moral knowledge or wisdom, we could (in the role of the inquirer) be hoping to gain the knowledge or wisdom that they possess through their testimony about what is right/wrong, what to do, or how to live. But we could also seek them out (in the role of the client) just in the hope that they will perform good or wise actions for or with us. And, as with knowledge more generally, our concepts of moral knowledge and wisdom seem to be at least as responsive to our needs as clients as our needs as inquirers.

5. Conclusions

One way of thinking of knowledge is as a special kind of achievement. When we think of knowledge this way it is natural to and try to analyse knowledge as a state with certain etiological or upstream properties. And, following Craig (1990), this way of thinking of knowledge is plausibly connected to an important social function of the concept of knowledge, namely, our need to identify reliable informants. Another way of thinking of knowledge is as a state that can guide us in action, a state that explains our achievements. When we think of knowledge this way it is natural to try to analyse knowledge as a state with certain downstream properties. And, following Hawley (2011), this way of thinking of knowledge is plausibly connected to a different but equally important social function of the concept of knowledge, namely, our need to identify reliable performers.

The ultimate relationship between these two forms of knowledge is a difficult question, and one beyond the scope of this discussion. But what I have tried to suggest here is that the idea that knowing-how is (paradigmatically) a kind of downstream knowledge, and that knowing-that is (paradigmatically) a kind of upstream knowledge, can help to explain certain apparent disanalogies between the profiles of knowing-how and knowing-that with respect to acquiring knowledge from other people, demonstrating our knowledge to other people, and epistemic

injustice. In addition, I suggested that the concept of downstream knowledge might usefully connect with discussions of moral knowledge and wisdom.²⁰

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