

# Revisionary intellectualism and Gettier

Yuri Cath

Published online: 4 January 2014  
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**Abstract** How should intellectualists respond to apparent Gettier-style counterexamples? Stanley (Know how, 2011a, Ch. 8) offers an orthodox response which rejects the claim that the subjects in such scenarios possess knowledge-how. I argue that intellectualists should embrace a revisionary response according to which knowledge-how is a distinctively practical species of knowledge-that that is compatible with Gettier-style luck.

**Keywords** Knowledge-how · Knowledge-that · Intentional action · Luck

## 1 Introduction

*Intellectualism* is the view that knowledge-how is a species of knowledge-that. Intellectualists are minimally committed to something like the following claim:

Necessarily,  $S$  knows how to  $\Phi$  iff  $S$  possesses a certain kind of knowledge-that

A typical intellectualist view is one on which  $S$  knows how to  $\Phi$  iff for some way  $w$ ,  $S$  knows that  $w$  is a way for  $S$  to  $\Phi$ . Some intellectualists will also require that  $S$  has to possess this knowledge in some particular way. For example, they might hold that in possessing this knowledge  $S$  has to entertain  $w$  *under a practical mode of presentation* (Stanley and Williamson 2001), or *minimally understand*  $w$  (Bengson and Moffett 2007).

In Cath (2011) I gave three arguments against intellectualism. Each argument was based on one of three orthodox assumptions, that all knowledge-that is subject to: (i) an anti-luck condition, (ii) a justified belief condition, and (iii) a belief

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Y. Cath (✉)  
School of Philosophy, Faculty of Arts and Humanities, University of East Anglia, Norwich Research Park, Norwich NR4 7TJ, UK  
e-mail: yuricath@gmail.com

condition. In each case, I argued that if the relevant assumption is correct then there will be counterexamples to intellectualism. The argument from the anti-luck condition appealed to the following Gettier-style scenario:

*The Lucky Light Bulb:* Charlie wants to learn how to change a light bulb, but he knows almost nothing about light fixtures or bulbs (as he has only ever seen light bulbs already installed and so he has never seen the end of a light bulb, nor the inside of a light fixture). To remedy this situation Charlie consults *The Idiot's Guide to Everyday Jobs*. Inside, he finds an accurate set of instructions describing the shape of a light fixture and bulb, and the way to change a bulb. Charlie grasps these instructions perfectly. And so there is a way, call it ' $w_1$ ', such that Charlie now believes that  $w_1$  is a way for him to change a light bulb, namely, the way described in the book. However, unbeknownst to Charlie, he is extremely lucky to have read these instructions, for the disgruntled author of *The Idiot's Guide* filled her book with misleading instructions. Under every entry she intentionally misdescribed the objects involved in that job, and described a series of actions that would not constitute a way to do the job at all. However, at the printers, a computer error caused the text under the entry for 'Changing a Light Bulb', in just one copy of the book, to be randomly replaced by new text. By incredible coincidence, this new text provided the clear and accurate set of instructions that Charlie would later consult.

The conclusion that this case is a counterexample to intellectualism was based on the following two claims (where ' $t_1$ ' refers to a moment just after Charlie has grasped the instructions in *The Idiots Guide*):

(KH<sub>1</sub>) At  $t_1$  Charlie knows how to change a light bulb

(NKT<sub>1</sub>) At  $t_1$  Charlie does not know that  $w_1$  is a way for him to change a light bulb.

I claimed that the *knowledge-how claim* (KH<sub>1</sub>) was intuitively correct, and I also provided an indirect argument for this claim based on connections between knowledge-how and intentional action. The case for the *no-knowledge-that claim* (NKT<sub>1</sub>) was that it is true if we endorse the orthodox assumption that knowledge-that is incompatible with the kind of epistemic luck found in Gettier scenarios.

Perhaps the most obvious way for an intellectualist to respond to this apparent Gettier-style counterexample would be to grant that KH<sub>1</sub> is intuitive but argue that it is nonetheless false. And Stanley (2011a, Ch. 8, Sect. 1) has recently offered an important response of this kind to the lucky light bulb case, and in this way he hopes to reconcile his commitment to intellectualism with the orthodox view that all knowledge-that is subject to an anti-luck condition.

This paper constitutes, in part, a reply to Stanley, as I will defend the claim that the subjects in apparent Gettier-style counterexamples possess knowledge-how. However, I will not defend the further claim that intellectualism is false, because I am no longer convinced that is the right conclusion to draw from such cases. Intellectualism is consistent with this stance because rejecting KH<sub>1</sub> is not the only response that an intellectualist can give to the lucky light bulb. Another possible

response is to accept  $KH_1$  whilst denying  $NKT_1$ , a response that has the seemingly radical consequence that knowledge-that need not be incompatible with Gettier-style luck.

The purpose of this paper is to explore this kind of response to apparent Gettier-style counterexamples. To help understand the kind of intellectualist view I will go on to defend it might help to draw a distinction between ‘orthodox’ versus ‘revisionary’ forms of intellectualism. Orthodox and revisionary intellectualists both claim that knowledge-how is a kind of knowledge-that. However, revisionary intellectualists also claim—and orthodox intellectualists deny—that accepting the truth of intellectualism requires us to substantially revise or rethink our set of orthodox assumptions about the nature of knowledge-that.<sup>1</sup>

This distinction is one of degree, and I think most intellectualists can be seen as being, to some degree, revisionary intellectualists. In particular, intellectualists often respond to objections to their view by rejecting certain widely held assumptions about the nature of knowledge-that that these objections rely on. For example, in this way, intellectualists have rejected objections to intellectualism based on the assumptions that knowledge-that requires the ability to communicate the content of one’s knowledge in non-indexical terms (Stanley and Williamson 2001, pp. 432–433) and that knowledge-that states are inert with respect to action in a way that knowledge-how states are not (Stanley 2011a, Ch. 1).<sup>2</sup>

When faced with apparent Gettier-style counterexamples I think intellectualists should respond in the same way. That is, they should deny that these cases are counterexamples by rejecting the orthodox assumption that knowledge-that is always incompatible with Gettier-style luck.<sup>3</sup> And I think the best way of developing this response is to hold that knowledge-how is a distinctively practical species of knowledge-that, where one of the properties that distinguishes it from other kinds of knowledge-that is this compatibility with Gettier-style luck. I will begin by expanding upon the argument from intentional action for  $KH_1$  and criticizing a response to it by Stanley (2011a), which will serve to motivate the need for the revisionary form of intellectualism that I will go on to develop.

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<sup>1</sup> This distinction is closely related to Glick’s (2011) distinction between ‘weak’ versus ‘strong’ intellectualism.

<sup>2</sup> An anonymous referee for this journal suggests that the first example is not a good one because the expressibility assumption is now widely rejected. I agree that many philosophers would now reject this assumption but I also think that many other philosophers still appear to accept it (if only implicitly), as suggested by the fact that objections to intellectualism often seem to rely on this assumption (for related discussion see Stanley 2011b, pp. 214–215).

<sup>3</sup> Interestingly, at one point S&W (2001, p. 435) could be interpreted as expressing some sympathy for this idea, although they then go on to present a case which is meant to show that knowledge-how is incompatible with the luck found in Gettier scenarios (for discussion see Cath 2011, p. 121).

## 2 The argument from intentional action

Many intellectualists and anti-intellectualists alike endorse qualified versions of the idea that knowing how to  $\Phi$  is a precondition for  $\Phi$ -ing. In its most unqualified and naïve guise this idea can be captured by the following theses:

If one  $\Phi$ s then one knows how to  $\Phi$ .

If one has an ability to  $\Phi$  then one knows how to  $\Phi$ .

As Stanley and Williamson (2001, henceforth ‘S&W’) point out these unrestricted claims are subject to clear counterexamples because there are many things which are, at least grammatically, ‘doings’ but which we do not know how to do (e.g. digesting one’s dinner or winning a fair lottery). However, S&W, and many others, have endorsed these claims when they are restricted in some way. S&W themselves endorse the following claims:

*The Action Thesis:* If S  $\Phi$ s intentionally, then S knows how to  $\Phi$ .

*The Ability Thesis:* If S has an ability to  $\Phi$  intentionally, then S knows how to  $\Phi$ .<sup>4</sup>

One way to support the idea that knowledge-how is a precondition of intentional action is to reflect on the connections between performing an action intentionally and that actions being under one’s *control* or *guidance*. A widely accepted idea in the philosophy of action is that one  $\Phi$ -s intentionally only if one guides one’s action of  $\Phi$ -ing.<sup>5</sup> And, in turn, it is very plausible that an action can be under one’s control or guidance only if one knows how to perform it (see Gibbons 2001 for related discussion).<sup>6</sup> And from these two ideas—that guided action is a precondition of intentional action<sup>7</sup> and knowledge-how is a precondition of guided action—it follows that knowledge-how is a precondition of intentional action.

<sup>4</sup> See Cath (2009) and (2011) for further discussion of the importance of these claims to S&W.

<sup>5</sup> An anonymous referee for this journal worries that this claim is only plausible if it is restricted to complex actions. I agree that it is less obvious that this claim extends to basic actions, although some philosophers have tried to argue that it will. For example, Hunter (2012) suggests that because all actions take time then all actions must involve parts or phases and that this “means that performing an action always requires being ready to perform the next part or phase when the time is right” (p. 72) which he takes to be part of what it is to for an action to be guided. And, as Setiya (2012) discusses, it seems plausible that even basic intentional actions have to be guided by one’s intention to perform that action. But, more importantly, none of the points I want to make in this section would be adversely impacted if we simply reinterpreted all of my claims about intentional and guided actions as being restricted to complex actions.

<sup>6</sup> As with the related action thesis, I think many prominent theorists about knowledge-how can be interpreted as being committed to this idea including Ryle (1949, Ch. 2), Stanley (2011a, Ch. 1), and Setiya (2012).

<sup>7</sup> This kind of claim is most famously associated with Frankfurt (1978) but it is important to stress that I am not committing myself here to his full view on which guiding one’s  $\Phi$ -ing is not only necessary but *sufficient* for  $\Phi$ -ing intentionally. Also Frankfurt takes his view to be inconsistent with a causal account of intentional action. However, as Setiya (2007, fn. 19) notes all that follows from Frankfurt’s view is that intentional actions are not to be explained in terms of prior causes but it could still be that the notion of guidance is itself a causal notion. Furthermore, the weaker necessity claim endorsed above is consistent with the idea that an intentional action must have certain kinds of prior causes.

But if knowledge-how is a precondition of intentional action we can mount a strong argument for  $KH_1$  (see Cath 2011). The same kind of argument can also be made for concluding that the subject in S&W's (2001, p. 435) supposed Gettier case for knowledge-how does, contra what they claim, know how to fly:

Bob wants to learn how to fly in a flight simulator. He is instructed by Henry. Unknown to Bob, Henry is a malicious imposter who has inserted a randomising device in the simulator's controls and intends to give all kinds of incorrect advice. Fortunately, by sheer chance the randomising device causes exactly the same results in the simulator as would have occurred without it, and by incompetence Henry gives exactly the same advice as a proper instructor would have done. Bob passes the course with flying colors. He has still not flown a real plane. Bob has a justified true belief about how to fly. But there is a good sense in which he does not *know* how to fly.

For example, using the ability thesis one can mount the following arguments (and related arguments can be given using the action thesis):

*The Argument from Intentional Action*

1. If S has the ability to  $\Phi$  intentionally, then S knows how to  $\Phi$
2. Charlie (at  $t_1$ ) has the ability to change a light bulb intentionally (2\*. Bob at  $t_2$  has the ability to fly intentionally)
3. Therefore, Charlie (at  $t_1$ ) knows how to change a light bulb (3\*. Bob at  $t_2$  knows how to fly)

Both (2) and (2\*) are, I think, extremely plausible (where ' $t_2$ ' above refers to a moment just after Bob has exited his simulator). One way of supporting these claims (see Cath 2011, p. 125) is to compare these subjects with their non-Gettierized counterparts. For example, to compare Bob with Joe, where Joe is a near perfect counterpart of Bob except that he non-controversially knows how to fly because his simulator not only operated correctly but did so non-accidentally, and his instructor intentionally gave him the correct advice, etc. If Joe were to try to fly a plane in normal circumstances he would typically succeed in so doing and his successful actions would be unquestionably *intentional* actions. And it is an implicit stipulation of the flight simulator case that if Bob were to try to fly a plane in normal circumstances then he would be just as likely to succeed as Joe. But not only would Bob succeed as often as Joe but, like Joe, his actions would appear to have all the standard kind of properties that are thought to distinguish merely successful actions from intentional actions. In particular, it is very plausible that Bob's successful actions of flying, like Joe's, would be perfectly under his control or guidance as he performs them.

This last claim can be strengthened by thinking about what it is for an action to be guided by an agent. How to understand this notion of guidance is a deep and difficult issue in the philosophy of action that we cannot properly address here. But, following Hunter (2012), I think it is very plausible that guiding an action minimally involves the possession of what he calls 'guidance dispositions' including dispositions to "adjust one's performance in the face of obstacles and to move on

to the next phase or part of the action when the time is right” (*ibid.*, p. 65).<sup>8</sup> And if one accepts this idea it supports the claim that Bob’s actions of flying would be under his guidance because, like Joe, he would be disposed to avoid obstacles as he flies and to perform the next phase of an action of flying at the right time.

To my mind, considerations like these strongly suggest that there is no good reason to hold that only Joe’s actions get to count as being intentional actions. In which case, I think the argument from intentional action shows us that Joe does know how to fly. Some might want to argue that Charlie and Bob’s actions are not properly intentional actions. I doubt that such an argument could be made plausible but, even if it could, we could still provide a strong argument for the respective knowledge-how claims from the weaker premises that these subject’s actions would be guided actions and that knowing how to  $\Phi$  is a precondition of guiding an action of  $\Phi$ -ing.<sup>9</sup>

Of course, orthodox intellectualists like Stanley will want to resist such arguments. Stanley (2011a), in response to a version of the argument from intentional action by Setiya (2008), grants that Bob is able to fly a plane intentionally but denies that he knows how to fly.<sup>10</sup> Stanley justifies this stance by appealing to an argument by Setiya himself which is meant to show that the action thesis needs to be replaced with the following weaker thesis:

If  $S$   $\Phi$ s intentionally, then  $S$  knows how to  $\Phi$  or else  $S$   $\Phi$ s by doing other things  $S$  knows how to do.

Setiya (2008, p. 404) supports this claim with the following case:

I am trying to defuse a bomb, staring with confusion at an array of colored wires. Which one to cut? In desperation, not having a clue what the wires do, whether they will trigger the bomb or not, I disconnect the red wire—and the timer stops. Even though I did not know how to defuse the bomb, and

<sup>8</sup> Hunter also endorses the much stronger view that this is all that there is to an action being a guided action. Or, in Hunter’s preferred terminology, I take his view to be that  $S$ ’s  $\Phi$ -ing is an action of  $\Phi$ -ing iff  $S$  possesses sufficient guidance dispositions as  $S$   $\Phi$ s. Hunter uses the term ‘action’ here as a term for  $\Phi$ -ings that manifest one’s agency (where that means that they are not merely things that happen to one and are not mere consequences of one’s actions) but which need not be intended or done for a reason, and in that sense are not intentional actions. My use of the term ‘guided action’ can be taken as being more or less equivalent to Hunter’s use of the term ‘action’ and I am only endorsing the claim that  $S$ ’s  $\Phi$ -ing is a guided action of  $\Phi$ -ing *only if*  $S$  possesses sufficient guidance dispositions as  $S$   $\Phi$ s. Also Hunter (following Frankfurt 1978) wants to use his ideas on guidance to support a non-causalist view of action but the mere idea that possessing certain guidance dispositions is a necessary condition of guiding one’s  $\Phi$ -ing is consistent with either a casual as well as a non-causal view of guided action (see fn. 7 above for related discussion).

<sup>9</sup> These premises are plausibly logically weaker than the original premises because the notion of an intentional action is arguably more demanding than that of a guided action. For example, it is often assumed that an intentional action must be done for a reason, but there are cases in the action literature that are plausibly examples of doings that are under an agent’s guidance but are not done for a reason, see Hunter (2012, p. 67).

<sup>10</sup> Stanley (2011a, fn. 4) offers a different response, suggesting that when Bob flies a plane he will not fly it *intentionally* on the grounds that this scenario is analogous to cases where  $S$   $\Phi$ ’s as a result of  $S$ ’s intending to  $\Phi$  but  $S$  fails to  $\Phi$  intentionally because of a deviant causal relation between  $S$ ’s intention and  $S$ ’s success in action. But this line of response is very implausible because no such deviant causal chains need be involved when Bob flies, see Cath (2011, pp. 129–130) for discussion.

managed to do so through dumb luck, I count as having defused the bomb intentionally. That is certainly what I meant to do, despite my uncertainty. ... When I do something intentionally that I do not know how to do, I must at least know how to take some relevant means. In the present case, I know how to cut the red wire, and I think it might defuse the bomb, even though I can't be sure. Knowledge how belongs at the core of any intentional action.

Stanley's suggestion then is that when Bob flies he does so intentionally but he does not know how to fly, rather he only knows how to perform other actions which are a means of flying. Setiya (2012) raises some important worries for Stanley's response to the argument from intentional action. I do not have the space to examine Setiya's discussion here but I will briefly identify two further worries.

First, Stanley's response relies on the assumption that Setiya's bomb case really is a counterexample to the action thesis. But this is a very contestable assumption which many philosophers of action would reject by arguing that the luck involved in Setiya's choosing of the correct wire means that he does not intentionally defuse the bomb. For example, see Mele and Moser (1994, p. 40) for a well-known argument of this kind.<sup>11</sup>

Second, Stanley does not provide any reasons for thinking that the flight simulator case is sufficiently similar to Setiya's bomb case that we should also view it as a case where a subject can  $\Phi$ -intentionally but does not know how to  $\Phi$ . In which case, Stanley's assumption that his case is of a kind with Setiya's appears *ad hoc*, being motivated only by the desire to save intellectualism. Furthermore, there are substantial differences between the two cases which should make one very wary of Stanley's assumption that the flight simulator is a case of this same kind. For example, Bob's successes in flying do not rely on the same kind of luck that is present in the bomber case, a point that can be seen by noting that Bob has a justified and true belief of the form '*w* is a way for me to fly' whereas Setiya does not even believe that cutting the red wire is a way for him to detonate the bomb, but only that it might be.

More could be said about the argument from intentional action and Stanley's reply to it.<sup>12</sup> However, it will suffice here to have identified this important motivation for the idea that subjects like Bob and Charlie do possess knowledge-how, and to have indicated why Stanley's response to this argument is inadequate. Assuming that knowledge-how is compatible with Gettier-style luck, what I want to do next is consider what this assumption can teach us about the nature of knowledge-how.

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<sup>11</sup> Setiya (2012) is well-aware of this kind of worry and tries to address it. I do not find Setiya's response to this worry to be very convincing but the point here is simply that it is a weakness of Stanley's response that it rests on such a contestable assumption without providing any defence of it.

<sup>12</sup> See Bengson and Moffett (2011b, pp. 172–173) for a different kind of putative counterexample to the ability thesis.

### 3 Action guidance and Gettier

In this section I will offer what I think is an attractive explanation of why knowledge-how is compatible with Gettier-style luck. To help introduce this explanation it will be useful to return again to the relationship between intentional action and knowledge-how. In the last section I noted that it is plausibly an essential feature of intentional actions that they are guided by states of knowledge-how. The mirror-image of this idea is that it is an essential feature of knowledge-how states that they are states which can (in the right circumstances) guide intentional action. And, as with the action thesis, different versions of this idea have been endorsed by intellectualists and anti-intellectualists alike. For example, the anti-intellectualist Kumar (2011) holds “that action-guidingness is part of the identity conditions for know how” and the intellectualists Bengson and Moffett (2011b, p. 177) endorse the following thesis:

[V] Knowledge how to  $\Phi$  is a state  $\sigma$  such that: if  $x$  is in  $\sigma$ , then it is possible for there to be some individual  $y$  such that  $y$ 's intentional exercise of  $\sigma$  underlies and explains  $y$ 's successfully and intentionally  $\Phi$ -ing—i.e.,  $\sigma$  *guides*  $y$  in successfully, intentionally  $\Phi$ -ing.

For my purposes it does not matter exactly how we develop the idea that it is an essential feature of knowledge-how states that they can guide intentional actions. But it will be useful to have a more specific version of this idea in mind. Bengson and Moffett's [V] thesis would work for my purposes but I suspect that it is too weak to capture the intuitive sense in which knowledge-how is an action-guiding state.<sup>13</sup> Instead, I would suggest that the idea that knowledge-how states are necessarily action guiding states is best represented by the following thesis:

*The Guidance as Necessary Thesis* (GN): Knowing how to  $\Phi$ -in-circumstances-C is a state  $\sigma$  such that: if  $S$  is in  $\sigma$  then  $\sigma$  is a state that can reliably guide  $S$  in successfully and intentionally  $\Phi$ -ing in circumstances C.<sup>14</sup>

<sup>13</sup> One way in which [V] looks to be too weak is that it does not require that if one is in a state of knowing how to  $\Phi$  then one is in a state that could possibly guide *oneself* in successfully and intentionally  $\Phi$ -ing, rather it only requires that one is in a state that could guide *some* possible agent in successfully  $\Phi$ -ing. Bengson and Moffett take that to be a virtue of [V] but for reasons that I don't find compelling (see, fn. 14 below). The other way in which I think [V] is too weak is that it only requires that there be at least one possible world in which  $\sigma$  guides a subject in successfully and intentionally  $\sigma$ -ing. This seems too weak to my mind because I think it is plausible that knowledge-how states are states that, in the right circumstances, are reliable guides to action.

<sup>14</sup> In what follows I will largely ignore this subtlety but, following Hawley (2003), I think knowledge-how states are best thought of as holding relative to sets of circumstances. That is, rather than simply knowing how to  $\Phi$  one always knows how to  $\Phi$ -in-circumstances- $C_1$  or  $\Phi$ -in-circumstances- $C_2$  etc. where the hyphens here should be read as modifying the action that one knows how to perform (compare Whittle 2010, p. 3). And I think this idea can be used to avoid certain putative counterexamples to GN. For example, Bengson and Moffett (2011b, pp. 170–171) present a case where Louis “knows how to find the  $n$ th numeral, for any numeral  $n$ , in the decimal expansion of  $\pi$ . He knows the algorithm and knows how to apply it in a given case. However, because of principled computational limitations, Louis (like all ordinary human beings) is unable to find the  $10^{46}$  numeral in the decimal expansion of  $\pi$ ”. Bengson and Moffett claim that Louis knows how to find the  $10^{46}$  numeral in the decimal expansion of  $\pi$  but that he is



How do knowledge-how states guide action? As with the parallel question about agents, this is a difficult question that I cannot fully address here. But, again, I think the right story will minimally involve the kind of guidance dispositions that Hunter (2012) identifies, such that a state of knowing how guides one in intentionally  $\Phi$ -ing only if one's being in that state explains one's possession of such dispositions as one  $\Phi$ s. (An explanation that could then be filled out in different ways depending on one's views of the metaphysics of knowing-how states. For example, one might hold that they are functional or dispositional states that are partly constituted by these guidance dispositions, or perhaps that they are distinct categorical states involving sentence-like representations in a "belief box" that, together with mechanisms that conform one's behavior to what is written in the box, serve to explain the agent's possession of these dispositions.)

Now recall Charlie and Bob. For the kind of reasons discussed in Sect. 2, I think it is very plausible that Charlie and Bob are in states that can guide them in performing the relevant intentional actions, and that they know how to perform these actions. Furthermore, I submit, a very natural explanation of why these subjects possess such knowledge-how is the very fact that the luck in these examples does not undermine the capacity of these subjects to guide their performance of these actions.

These points might be taken together to support the idea that not only is it *necessary* for a state to be a state of knowing how to  $\Phi$  that it possess certain action-guiding properties but that it is also *sufficient*. If we develop this idea in a way parallel to GN we get:

*The Guidance as Sufficient Thesis (GS):* Knowing how to  $\Phi$ -in-circumstances- $C$  is a state  $\sigma$  such that: If  $S$  is in a state  $\xi$  that can reliably guide  $S$  in successfully and intentionally  $\Phi$ -ing in circumstances  $C$  then  $S$  is in  $\sigma$ .

And if a revisionary intellectualist accepts GS then they can offer a nice explanation of why Charlie knows how to change a light bulb by pointing to GS and the fact that Charlie is a state that can guide him in intentionally changing a light bulb.

However, one might worry that no intellectualist can accept GS if one thought that there are states that: (i) are reliable guides to intentional action, (ii) are not any kind of knowledge-that state, and (iii) are states that one can be in without being in any relevant kind of knowledge-that state (i.e. any knowledge-that state that might

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Footnote 14 continued

not in a state that can guide *himself* in performing that action as is shown by the fact that he is unable to perform that action in any normal circumstances. And this is one reason why Bengson and Moffett would reject GN in favour of [V]. But I think this motivation disappears once we specify the relevant actions here more carefully. Louis knows how to *find-the- $10^{46}$ -numeral-in-the-decimal-expansion-of- $\pi$ -in-circumstances-where-he-has-much-greater-computational-powers*, but that is an action that he is also able to perform. And Louis is unable to *find-the- $10^{46}$ -numeral-in-the-decimal-expansion-of- $\pi$ -in-circumstances-where-he-has-his-current-computational-powers*, but that is also something that he does not know how to do. Perhaps in most conversational settings one could only legitimately assert the unqualified knowledge-how ascription and not the unqualified ability ascription. But I think that merely reflects the fact that knowledge-how ascriptions and ability ascriptions are often assigned different modal parameters, see Stanley (2011a, Ch. 5, Sect. 3).

plausibly figure in an intellectualist analysis of knowledge-how). For if GS and all of (i)–(iii) were true then it would follow that intellectualism is false because there are cases where knowledge-how really does come apart from knowledge-that.

My preferred response to this worry would be to argue that no state which satisfies (i) will also satisfy (ii) or (iii) by appealing to a dispositional account of the propositional attitudes and the fact that guiding an action requires the possession of guidance dispositions. The idea being that merely possessing these guidance dispositions will suffice for one to count as being in the right kind of knowledge-that state. However, that argument will have to be explored elsewhere.<sup>15</sup> What I will rely on here is the fact that the assumption that Charlie knows how to change a light bulb does not establish GS. Furthermore, the claim that Charlie's knowing how to change a light bulb is explained by his being in an action-guiding state is consistent with the assumption that merely being in such a state does not suffice for possessing knowledge-how. For it may be that being in such a state is simply the most salient factor in explaining why Charlie possesses knowledge-how but that possessing knowledge-how also requires, say, true belief.

With these points in mind, I will simply assume in what follows that knowing how to  $\Phi$  is 'minimally intellectualist' in the sense that one can know how to  $\Phi$  only if, for some way  $w$ , one truly believes that  $w$  is a way for one to  $\Phi$ . Furthermore, it will also be useful to adopt the widely (albeit not universally) accepted idea that knowledge-that is a species of true belief, in the sense that knowledge-that states are true belief states with certain further properties that upgrade them into states of knowledge rather than just mere true belief. With these assumptions in place, what I want to show next is how a revisionary intellectualist can adopt the explanation given above of why knowledge-how is compatible with Gettier-style luck.

#### 4 Guiding beliefs

When epistemologists try to understand what distinguishes knowledge-that from mere true belief they invariably look 'backwards' or 'upstream' to the causal and/or rational origins of those states.<sup>16</sup> One might claim that, unlike mere true beliefs, states of knowledge-that must involve beliefs that are based on good reasons, or are the product of reliable belief-forming mechanism, etc. Similarly, epistemologists look backwards when they try to understand why the justified true belief states in Gettier cases fail to constitute knowledge. After all, the luck in Gettier cases is always what we might call *upstream luck* in that it is luck involved in a subject's *coming to be* in a state of true belief given certain conditions that were in place *before* they formed that belief.

As we have seen, cases like the lucky light bulb suggest that knowledge-how is compatible with this upstream luck because it does not undermine the forward-

<sup>15</sup> I develop a view of knowledge-how which supports this argument in Cath (ms).

<sup>16</sup> As Hookway (2006) notes 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".

looking role of knowledge-how states as action-guiding states. One way in which a revisionary intellectualist could adapt this explanation into a minimally intellectualist framework would be to endorse the following analysis:

*The Guiding Belief Analysis (GB)*

$S$  knows how to  $\Phi$ -in-circumstances- $C$  iff for some way  $w$  which is a way for  $S$  to  $\Phi$ ,  $S$  is in a state  $\sigma$  of believing that  $w$  is a way for  $S$  to  $\Phi$ , and  $\sigma$  is a state that can reliably guide  $S$  in successfully and intentionally  $\Phi$ -ing in circumstances  $C$ .

The left-to-right direction of GB is an adaptation of GN into a minimally intellectualist framework. It is worth acknowledging that many anti-intellectualists may argue here that no true belief state could possess the kind of action-guiding properties that are essential to knowledge-how. This is because anti-intellectualists often argue that propositional attitude states of knowing or believing are inert with respect to action in a way that knowledge-how states are not. One way in which this idea arises is in the form of insufficiency objections to intellectualism<sup>17</sup> based on examples like Stanley and Williamson's (2001, p. 428) case of Hannah, who does not know how to ride a bicycle but who does know that *that* way is a way for her to ride a bicycle (where the demonstrative denotes the way that John is riding a bicycle).<sup>18</sup> This insufficiency problem is, I think, just a symptom of the deeper challenge of showing how the action-guiding properties of knowledge-how states can be preserved within an intellectualist account of knowledge-how. Providing an answer to that challenge is a task for another occasion. What matters in this context is simply that this challenge is no more difficult for the revisionary intellectualist who endorses GB than it is for the orthodox intellectualist. For example, note that a revisionary intellectualist who endorses GB can adopt any of the existing intellectualist attempts to answer the insufficiency objection. They might claim that to know how to  $\Phi$  one not only needs to believe that  $w$  is a way for  $S$  to  $\Phi$  but also, in so believing, one must entertain  $w$  under a practical mode of presentation (following S&W 2001) or minimally understand  $w$  (following Bengson and Moffett 2007).<sup>19</sup>

The right-to-left direction of GB is an adaptation of GS into a minimally intellectualist framework. A revisionary intellectualist who endorses GB can use this direction of this analysis to provide an explanation of why knowledge-how is compatible with Gettier-style luck that parallels the explanation one can give by appealing to GS. Recall that not only does Charlie come to be in a state that can guide him in successfully and intentionally changing a light bulb but he also comes

<sup>17</sup> Similarly, I think the famous regress objection to intellectualism is based on the assumption that, unlike like knowledge-how, knowledge-that states can never *directly* guide action, see Cath (2013) and Stanley (2011b, Ch. 1) for related discussion.

<sup>18</sup> Kumar (2011) claims that cases like Hannah show that belief states are not essentially action-guiding states (at least not in the way that knowledge-how states are) and, on this basis, concludes that intellectualism is false. But I think this argument fails. For while Hannah might show us that true belief in general is not an essentially action-guiding state, that conclusion is consistent with the claim that there is a distinctive species of true belief that is an essentially action-guiding state.

<sup>19</sup> For discussion of the insufficiency problem see Cath (2008, Ch. 1) and Glick (2013).

to be in a true belief state of the form ‘*w* is a way for me to change a light bulb’. I think it is very plausible that the former state and the latter are simply one and the same state. In which case, a revisionary intellectualist who endorses GB can explain why Charlie and Bob possess knowledge-how by appealing to the right-to-left direction of GB.

Furthermore, a revisionary intellectualist who endorses GB can explain not only the presence of knowledge-how in cases like the lucky light bulb but also the absence of it in a different kind of Gettier-style case described by Gibbons (2001, pp. 589–590):

[Harry]<sup>20</sup> intends to kill his uncle by planting a bomb in his house and then, after moving a safe distance away, pressing the large red button on the remote control device. He does not know much about how these things work. He thinks that pressing the button will cause the bomb to detonate but has no idea about the details of this process. His belief is true and, we can suppose, justified. But here is what happens. A satellite, launched by the National Security Agency and designed to prevent bombings of just this kind, intercepts [Harry]’s transmission; this causes the satellite to send a warning to his intended victim; but, because of an unfortunate choice of frequency, this causes the bomb to detonate. [Harry] killed his uncle and caused the bomb to detonate, but he did not do either of these things intentionally. ... What [Harry] lacks is knowledge. Knowing how is more than just being able. You are able to do something if you have a plan of action that will work. [Harry]’s action plan works, but it is just an accident that it does. To the extent that *knowing that* is something like having a nonaccidentally true belief, *knowing how* is something like having a nonaccidentally effective action plan. ... Our notion of intentional action involves our notion of control. In a fair lottery, you have no control over the outcome. [Harry] is not in control of his bomb.

In the light bulb and flight simulator cases a subject has a justified true belief with the right kind of intellectualist content but that belief is only true as a matter of mere luck. And, at least at first glance, the lucky bomber case may appear to be a case with these same features. After all, Harry will believe that pressing the button is a way for him to cause the bomb to detonate, and this belief is, arguably, both true and only true as a matter of mere luck. However, unlike the light bulb and flight simulator cases, the subject in Gibbon’s lucky bomber case appears *not* to know how to perform the relevant action.

More carefully, the case has these features if we fill it in the right way. In particular, I think for the belief to be clearly true as a matter of mere luck it would be helpful to suppose that the transmission device is faulty such that even in normal circumstances (where the transmission is not intercepted etc.) it would not cause the bomb to detonate because it transmits on the wrong frequency. Otherwise it is not clear to me that Harry’s belief is merely true as a matter of luck or that he fails to

<sup>20</sup> Gibbons (2001) calls this character ‘Bobby’ not ‘Harry’ but (with apologies to Gibbons and also Bobby) I thought it would be clearer to use a different name here given that we already have a Bob in our story.

know how to detonate the bomb. However, with that proviso in place, I think the case is plausibly one which has all of the above features. But then it seems we face a puzzle because this case seems to suggest that the upstream luck in Gettier cases is compatible with knowledge-how, while the apparent Gettier-style counterexamples suggest the opposite. And an orthodox intellectualist might well suspect that Gibbons case can be enlisted to support their assumption that knowledge-how is always incompatible with Gettier-style luck.

However, I think there are significant differences between Gibbons' case and the apparent Gettier-style counterexamples which can be used to dissolve this puzzle. As Gibbons indicates, Harry's true belief is clearly not a state that can guide him in *intentionally* performing the relevant action, whereas Charlie's true belief can so guide him. And, given this difference, a proponent of GB can explain both why Charlie possesses knowledge-how (by appealing to the right-to-left direction of GB) and why Harry does not (by appealing to the left-to-right direction of GB).<sup>21</sup>

This difference between Harry and Charlie is traceable to differences in the contents of their beliefs. In Harry's case, the way he believes to be a way of detonating the bomb is only accidentally a way to detonate the bomb and, hence, his plan of detonating the bomb by pressing the button is only accidentally effective. On the other hand, the way that Charlie believes to be a way of changing a light bulb is just the standard way of changing a light bulb and, hence, trying to change a light bulb in that way is a plan that will work for Charlie in a very wide range of normal circumstances. Using Gibbons' terminology, we might say that Charlie *accidentally comes to possess a non-accidentally effective action plan* whereas Harry *accidentally comes to possess an accidentally effective action plan*.

Interestingly, this contrast suggests that knowledge-how states are subject to a kind of safety condition such that the *contents* of such states could not have easily been false. And this idea fits well with GB because one's state of truly believing that  $w$  is a way for oneself to  $\Phi$  will not be a state that can reliably guide one in action if it could have easily been the case that  $w$  was not a way for oneself to  $\Phi$ . But, on the other hand, cases like the lucky light bulb suggest that knowledge-how is not subject to a safety condition which says that the *method* by which one formed one's true belief that  $w$  is a way for oneself to  $\Phi$  could not have easily led one to some false belief with a *relevantly similar content*.<sup>22</sup>

<sup>21</sup> It is worth noting that there are two distinct respects in which Harry's belief fails to satisfy the right-hand-side of GB. As noted above, Harry's belief state cannot guide him (reliably or otherwise) in *intentionally* performing the relevant actions but it also cannot guide him in *reliably* performing the action (intentional or otherwise). Thanks to an anonymous reviewer for this journal for asking me to clarify this issue.

<sup>22</sup> The fact that the content of Charlie's true belief could not have easily been false means that it will be classified as a *non-luckily* true belief by Pritchard's (2005) well-known modal anti-luck condition: (AL)  $S$ 's true belief is non-lucky *iff* there is no wide class of nearby possible worlds in which  $S$  continues to believe the *target proposition*, and the relevant initial conditions for the formation of that belief are the same as in the actual world, and yet the belief is false. But this just reflects a well-known problem with Pritchard's analysis which is that it cannot handle luckily true beliefs which have contents that are true in most or all nearby worlds in which the relevant initial conditions hold. As Pritchard (2012) and Hiller and Neta (2007) discuss it is natural to think that the solution to this problem will involve moving to idea that the method by which one formed one's true belief could not have easily led one to a false belief with some relevantly similar (but perhaps not identical) content. In which case, we would replace AL with

Another way of characterising the difference between Harry and Charlie is that while both cases involve the presence of upstream luck only the bomber case involves a kind of *downstream luck*. Upstream luck is luck that plays a crucial role in  $S$ 's coming to be in a true belief state given certain relevant initial conditions that were in place before  $S$  formed that belief. Downstream luck can be characterised as luck that plays a crucial role in  $S$ 's succeeding in  $\Phi$ -ing given certain relevant initial conditions which include  $S$ 's truly believing that  $w$  is a way for  $S$  to  $\Phi$  (and perhaps other conditions like  $S$ 's intending to  $\Phi$  in that way). Both Charlie and Harry are lucky to possess relevant true beliefs of the form ' $w$  is way for me to  $\Phi$ ' but only Harry needs luck to intervene in order for him to successfully  $\Phi$  when he forms the intention to  $\Phi$  in accordance with his belief.

The initial puzzle raised by Gibbons' lucky bomber case is that it appears to suggest that Gettier-style luck is incompatible with knowledge-how while cases like the lucky light bulb suggest the opposite. But this puzzle can be resolved by noting that the lucky bomber case involves both upstream and downstream luck, whereas the lucky light bulb only involves upstream luck. This suggests that it is only the presence of the downstream luck in the lucky bomber case that is responsible for Harry's failing to know how to detonate the bomb.

## 5 Practical knowledge-that

A revisionary intellectualist who endorses GB can explain the presence of knowledge-how in cases like the lucky light bulb as well as its absence in Gibbons' bomber case. Furthermore, our discussion of GB suggests how a revisionary intellectualist can begin to characterize the distinction between the kind of knowledge-that with which they identify knowledge-how—what we can call *practical knowledge-that*—and the kind of knowledge-that which is our usual object of study in epistemology—what we can call *theoretical knowledge-that*. Or, more specifically, the distinction between having practical, versus theoretical, knowledge that  $w$  is a way for oneself to  $\Phi$ .

Theoretical knowledge-that can be seen as a distinctive species of true belief which is characterized by the kind of backward-looking properties that are familiar from standard philosophical accounts of knowledge. On the other hand, practical knowledge-that is a distinctive species of true belief that is exhaustively characterized in terms of its content and the forwards-looking property of being an action-guiding state. And we can also distinguish these two kinds of knowledge-that by their differing relationships to luck: practical knowledge-that is compatible with upstream luck and incompatible with downstream luck, while the reverse is true for theoretical knowledge-that.

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Footnote 22 continued

something like:  $S$ 's true belief is non-lucky *iff* there is no wide class of nearby possible worlds in which  $S$  believes some *relevantly similar proposition*, and the relevant initial conditions for the formation of that belief are the same as in the actual world, and yet the belief is false. See Hiller and Neta (2007) for concerns about this move.

This distinction can then be illustrated by considering cases where these two kinds of knowledge-that come apart. Hannah has theoretical, but not practical, knowledge that *that* way is a way for her to ride a bicycle, because while her true belief was impeccably formed it is not a belief that can guide her in actions of intentionally riding a bicycle. On the other hand, Charlie possesses practical, but not theoretical knowledge, that  $w_1$  is a way for him to change a light bulb because while his relevant true belief can reliably guide him in actions of intentionally changing a light bulb it is nonetheless a ‘Gettierized’ belief. And it is Charlie’s practical knowledge that  $w_1$  is a way for him to change a light bulb that our revisionary intellectualist will appeal to in order to avoid the conclusion that the light bulb case is a counterexample to intellectualism, with the claim being that Charlie’s knowledge-how is grounded in this state of practical knowledge-that.

Importantly, the revisionary intellectualist who endorses GB can identify not only what distinguishes practical knowledge-that and theoretical knowledge-that but also what unites these two forms of knowledge. As we have seen, both kinds of knowledge are minimally united by the fact that they involve not only true beliefs but true beliefs with contents that could not have easily been false. Given such similarities, it seems to me that this is a view on which knowledge-how can be reasonably claimed to be a kind of knowledge-that.<sup>23</sup>

## 6 Stanley’s orthodox intellectualism

As mentioned in Sect. 1, Stanley in *Know How* (2011a, Ch. 8, Sect. 1) aims to provide an orthodox response to apparent Gettier-style counterexamples which rejects the claim that the subjects in such scenarios possess knowledge-how, a point he makes clear at the outset of his discussion:

My aim in the final chapter of the book is to address residual discomfort with its conclusions. Knowledge is a standard more demanding than justified true belief. In Sect. 1, *I justify the more demanding standard* in the face of apparent Gettier-style counterexamples. (p. 175, emphasis added)

What I want to argue now is that Stanley’s main response to apparent Gettier-style counterexamples provides us with no reason to prefer his orthodox form of intellectualism over the revisionary form of intellectualism advocated here. In which case, Stanley does not achieve his aim of justifying his “more demanding standard”, that is, he does not succeed in justifying his assumption that knowledge-how is incompatible with Gettier-style luck.

<sup>23</sup> It is worth mentioning that in making the metaphysical claim that there are two distinct kinds of knowledge-that I am not thereby committed to the semantic claim that ‘knows’ is ambiguous, see Glick (2011, Sect. 7) for a very helpful discussion of this kind of point. Similarly, Sosa (2007, p. 24) in relation to his well-known distinction between two different kinds of knowledge-that writes: ‘Animal knowledge is essentially apt-belief, as distinguished from the more demanding reflective knowledge. This is not to say that the word “knows” is ambiguous. Maybe it is, but distinguishing a kind of knowledge as “animal” knowledge requires no commitment to that linguistic thesis.’



Stanley's main response to the lucky light bulb is an overgeneralization objection: "The problem with Cath's argument is that it is too general—if sound, it applies to many forms of knowledge-wh" (2001, p. 179). In support of this claim Stanley offers *the lucky light bulb II*, a case which exactly parallels the original except that it is a Gettier-style case for knowing *where* to find a light bulb. Stanley claims that the intuition that Charlie knows where to find a light bulb in his case is as strong as the intuition that he knows how to change a light bulb in the original. But, according to Stanley, it would be absurd to conclude that the lucky light bulb II shows us that knowledge-where is not a kind of knowledge-that. In which case, Stanley concludes that the lucky light bulb cannot be a counterexample on the grounds that if one argument fails then so does the other.

I think an anti-intellectualist could make a reasonable case that biting this overgeneralization bullet is actually the right response to the lucky light bulb II.<sup>24</sup> But, for the sake of argument, let us assume that the overgeneralization objection succeeds in showing that the lucky light bulb is not a counterexample to intellectualism. Even so, this response does not tell us *how* we should defuse this apparent counterexample as it does not tell us whether we should reject KH<sub>1</sub> or NKT<sub>1</sub>. That is, this response shows us, at best, that intellectualism is true but not that orthodox as opposed to revisionary intellectualism is true.

At this point, perhaps Stanley would respond with a further overgeneralization objection: If the right response to the lucky light bulb is to accept the knowledge-how claim and deny the no-knowledge-that claim then the right response to the lucky light bulb II must also be to accept the knowledge-where claim and deny the no-knowledge-that claim. However, the latter position is clearly absurd and, hence, the former position must also be rejected.

One problem with this objection is that it is not clear that an intellectualist about knowledge-wh in general must defuse the two lucky light bulb cases in the same way, especially once we note that KH<sub>1</sub> is not only supported by intuition but also by the argument from intentional action. But, more importantly, it would simply not be absurd for an intellectualist to accept the knowledge-where claim and deny the no-knowledge-that claim.

As Stanley discusses, Hawthorne (2000) gives a case where it seems intuitively correct to ascribe knowledge-whether to a subject despite the fact that their relevant beliefs are Gettierized, and Stanley appeals to this case to support his interpretation of the lucky light bulb II. Stanley holds that in both cases, given the absurdity of denying that knowledge-whether and knowledge-where are kinds of knowledge-that, we must conclude that the relevant knowledge-wh ascriptions, whilst intuitive, are nonetheless false. And Stanley (2011a, p. 180) appears to want to enlist Hawthorne in supporting this conclusion when he writes: "As Hawthorne emphasizes, ascriptions of knowing-whether often do not appear Gettier-susceptible, despite clearly being ascriptions of propositional knowledge." But, unlike Stanley, Hawthorne does *not* thereby conclude that we must reject these knowledge-

<sup>24</sup> As Carter (2012, p. 760) writes: "Stanley's strategy of reply to Cath...counts against the efficacy of Cath's counterexample just as much as it would support a distinction between knowledge-wh and knowledge-that....".



whether ascriptions. On the contrary, he describes the lesson of such cases like so: “Lesson: In many contexts, gettierized true belief *is* knowledge” (Hawthorne 2000, p. 203). And he goes on to sketch a contextualist story on which these knowledge-whether ascriptions come out as being true.<sup>25</sup>

The issue of what to say about Gettier cases involving forms of knowledge-wh other than knowledge-how is a complex one that is beyond the scope of this paper. But, like Hawthorne, I think it is far from obvious that an intellectualist about knowledge-wh must deny such ascriptions. I fail to see any force then in the further overgeneralisation objection. It might be absurd to suggest that knowledge-where is not any kind of knowledge-that but it is not absurd to suggest that knowledge-where might sometimes be compatible with Gettier-style luck.<sup>26</sup>

Stanley does go on to offer a pragmatic explanation of our intuitions that knowledge-wh is compatible with Gettier-style luck. Does this discussion provide us with any reason to reject revisionary intellectualism? Here is a key passage:

Similarly, when we ask whether John knows how to ride a bicycle, we are typically only interested in whether, were John to set off on a bicycle guided by his belief about how to ride a bicycle, he would successfully be able to achieve his goal (perhaps of getting us chips). The reason we do not hear many ascriptions of knowledge-wh as Gettier susceptible is not because they are non-propositional. Rather, it is because the pragmatics of situations in which we ascribe knowledge-wh often places the focus on true belief, rather than justification. (Stanley 2011a, pp. 180–181)

The revisionary intellectualist will obviously agree that when we make knowledge-how ascriptions we are often interested in states that are not Gettier-susceptible states. But this observation by itself gives us no reason to think that our intuition that Charlie knows how to change a light bulb can be explained away pragmatically. More generally, the mere assumption that when we make a certain kind of knowledge-ascription we are often interested in conveying that the relevant subject is in a certain kind of state does not give us any reason to think that such ascriptions merely pragmatically convey, rather than semantically express, the proposition that

<sup>25</sup> Similarly, Hawthorne (2002, p. 253–254) considers related cases involving knowledge-that ascriptions and he distinguishes four different theoretical stances one might take towards these ascriptions, only one of which involves treating these ascriptions as false.

<sup>26</sup> Perhaps the moral of cases like the lucky light bulb II is that knowledge-where ascriptions are sometimes used to refer to something like the kind of practical knowledge-that states with which I have identified knowledge-how. Partly for ease of exposition, I have been speaking as if *all*, and *only*, ‘S knows how to  $\Phi$ ’ sentences ascribe states of practical knowledge-that. But one might want to question both assumptions. What really matters for the spirit of the proposal I have given is that there is a genuine distinction to be made between practical versus theoretical knowledge-that states and that the subjects in the Gettier-style cases for knowledge-how possess the former kind of knowledge. The further question of how exactly we track this distinction in language is an important question, but one is not automatically committed to any particular answer to it just by endorsing the existence of this practical/theoretical distinction, again see Glick (2011, Sect. 7) for an excellent discussion of related issues.

the subject is in such a state.<sup>27</sup> Indeed, other things being equal, it is simply good methodology to assume exactly the opposite. A point that Stanley himself has rightly defended in another context (see his 2005, pp. 13–15).

As Stanley is surely sensitive to these points, I think the most charitable interpretation of his discussion at this point is that he is simply assuming that other things are not equal. More precisely, Stanley takes the overgeneralization objection to have already shown that the intuition that Charlie possesses knowledge-how is false. In which case, it makes sense to look around for materials that might be used in an explanation of why we nonetheless have this false intuition.<sup>28</sup> But the overgeneralization objection only establishes, at best, that either the knowledge-how or the no-knowledge-that claim is false. In which case, Stanley's observations about

<sup>27</sup> This is a good point at which to consider the following interesting worry raised by an anonymous referee for this journal: It seems very hard to hear knowledge-that attributions as being compatible with upstream luck but if knowledge-how is a kind of knowledge-that, that is compatible with such luck, shouldn't it be easy to attribute this knowledge using sentences of the form 'S knows that p'? One thing to say here is that, as Stanley (2011a, p. 180) and Hawthorne (2000, 2002) both discuss, there are case where knowledge-that ascriptions seem to be compatible with upstream luck. However, one might still worry that the same is not true with respect to claims like NKT<sub>1</sub>. Assuming that NKT<sub>1</sub> is not intuitively correct, one thing to note is that this presents a *prima facie* problem for Stanley's position. This is because given his story about this being a context where we are only interested in whether Charlie has a relevant true belief then he should predict that *both* KH<sub>1</sub> and NKT<sub>1</sub> will *seem* to be true to us. This is important as it shows us that the non-intuitiveness of NKT<sub>1</sub> does not present any special problem for the revisionary intellectualist. And I also think the non-intuitiveness of NKT<sub>1</sub> does not present any direct challenge to the revisionary intellectualist. This is because it doesn't follow from the claim that knowledge-how states are a distinctive kind of knowledge-that state that whenever an ascription of the form 'S knows how to Φ' is true in a given context then some corresponding ascription of the form 'S knows that w is a way for S to Φ' will be either true, or intuitively appear to be true, in that same context. At most I think it follows that knowledge-that ascriptions must sometimes be used to ascribe the kind of true belief states that I am identifying knowledge-how with, and I think that the examples discussed by Stanley and Hawthorne suggest that this is the case.

<sup>28</sup> In this discussion Stanley also suggests that a state of knowing how to fly has greater value than the true belief state of a Gettierized pilot like Bob. And, in support of this claim, Stanley (2011a, p. 243) appeals to the fact that "We would not be as happy with Bob as our pilot as we would with someone trained by a skilled flight instructor even if we were antecedently assured that their beliefs about how to fly the plane are the same." Perhaps what Stanley wants to claim here is that a state of knowing how to fly has greater value than Bob's true belief *with respect to the value of being a guide to action*. But if that is the idea I fail to see how Stanley has provided any support for it. For any tendency we might have 'in the wild' to choose Joe (recall Bob's non-Gettierized twin) over Bob as our pilot can be explained by the fact that finding out that a pilot's training involved faulty simulators and lucky accidents would usually be a good reason to question whether they are a reliable pilot. But if one were really certain that, despite the oddities involved in his training, Bob was just as reliable a pilot as Joe then one would not have any good reason to prefer Joe over Bob. Of course, in any real life scenario one would never be certain of such a thing. But that just goes to show that facts about which pilot we would choose in real life should be given little weight when considering what the right thing is to say about a hypothetical case where the fact that Bob is as reliable as Joe is just an implicitly stipulated feature of the case. On the other hand, it is undeniable that Joe's belief state has greater *all things considered value*. After all, the different etiological properties of Joe's belief confer greater epistemic worth on it. But this difference only supports an argument for Bob's not knowing how to fly if having a belief that possesses these etiological properties is assumed to be a necessary condition of knowing how to fly, and that is the very assumption which is under dispute. In which case, merely pointing to this difference does not support an argument for Bob's failing to know how to fly.

our interests in making knowledge-how ascriptions do not provide us with any argument for orthodox as opposed to revisionary intellectualism.<sup>29</sup>

## 7 Further issues

I hope to have provided here a good initial case for thinking that intellectualists should adopt a revisionary, rather than an orthodox, response to apparent Gettier-style counterexamples. I do not consider this case to be conclusive and I have not attempted to defend the assumption that we should be any kind of intellectualist as opposed to some kind of anti-intellectualist. Another issue I have not addressed is what the intellectualist should say in response to the other two kinds of apparent counterexamples given in Cath (2011).

A proper evaluation of these two remaining issues will have to be developed elsewhere<sup>30</sup> but it would be remiss if I did not provide some indication now of how I think intellectualists should handle these further putative counterexamples. One case involved Lucy who, intuitively, retains her knowledge how to juggle despite ignoring an undefeated defeater for her relevant true belief of the form ‘*w* is a way for me to juggle’. I think this case can be handled in the same way as the response given here to the lucky bulb, as the fact that Lucy’s belief is not justified does not undermine the fact that it can guide her in action.

The other case involves Jodie who, intuitively, still knows how to juggle even though she, arguably, loses her relevant belief of the form ‘*w* is a way for me to juggle’ when she becomes aware of an undefeated defeater for it. Like Brogaard (2011) and Demircioglu (2012), I think this is potentially the trickiest case for the intellectualist to respond to. For one thing, the revisionary option of denying that knowledge-that is always subject to a belief condition might strike one as crazy. However, I think Brogaard (2011, Sect. 6) has shown that one can actually make a strong case for this kind of response. And, more generally, I think one should be

<sup>29</sup> Suppose Stanley is right and claims like  $KH_1$  are literally false and intuitions that they are true merely reflect the pragmatics of knowledge-how ascriptions. If this were true it would show us that we are subject to a kind of “semantic blindness” when we intuit that these knowledge-how ascriptions are true. But then it is not unreasonable to suppose that the same kind of semantic blindness might also be at work when we have the intuition that knowledge-how is a precondition of intentional action. This shows us that even if a revisionary intellectualist was forced to agree with Stanley that  $KH_1$  is literally false, they could still have a very substantial disagreement with him about the nature of the kind of states that are a precondition of intentional action. The revisionary intellectualist would claim that the kind of states that are a precondition of intentional action are just the kind of guiding true belief states that we have in mind when we assert the false claim that Charlie knows how to change a light bulb. And this kind of revisionary intellectualist could support their position by appealing to how plausible it is that a subject like Charlie possesses the ability to intentionally change a light bulb.

<sup>30</sup> In Cath (MS) I address both issues in the context of offering a view of knowledge-how which endorses both the intellectualist claim that knowledge-how states are knowledge-that states and the Rylean claim that they are dispositional states. In this discussion I explore two different responses to the Jodie case (see above) each of which appeals to recent work on dispositional accounts of the propositional attitudes by Myers-Schulz and Schwitzgebel (2013) and Schwitzgebel (2002). I am no longer attracted to the ‘seeming analysis’ of knowledge-how which I offered in Cath (2011) although I do think that seemings will play an important role in characterizing the dispositional profile of knowledge-how states.

optimistic that there is some way for intellectualists to handle the Jodie case once one notes that this case is of a kind with cases where, intuitively, a subject knows that  $p$  even though they, arguably, do not believe that  $p$ , the most famous example being Radford's (1966) timid examinee case. I suspect that a correct account of what is going on in Radford-style cases will also show us how Jodie's case can be interpreted in a way that is friendly to intellectualism.

**Acknowledgment** I would like to thank an anonymous referee for this journal for their helpful suggestions as well as audiences at various venues including the University of East Anglia, the University of St Andrews, and "The Gettier Problem at 50" conference at the University of Edinburgh.

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