

EPISTEMOLOGIA CONTEMPORÂNEA EM DEBATE

The Virtue of Knowing-How*

A virtude do saber-como

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Abstract: Intellectualists about knowledge-how state that knowledge-how is a kind of propositional knowledge. Anti-intellectualists try to show that there are cases where the agent has knowledge-how without knowing-that. This paper focuses on recent anti-intellectualists' arguments by Carter and Pritchard. I argue that Carter and Pritchard's arguments are not well succeeded and that, if we apply virtue epistemology to this debate, we can conclude that knowledge-how shares the same epistemic properties as propositional knowledge. If this is correct, we can say that knowledge-how is a kind of propositional knowledge and intellectualism is safe again.

Keywords: Virtue Epistemology. Knowledge-How. Epistemic Luck. Propositional Knowledge.

Resumo: Intelectualistas sobre o conhecimento-como afirmam que o conhecimento-como é um tipo de conhecimento proposicional. Anti-intelectualistas procuram demonstrar que existem casos em que o agente possui conhecimento-como, mas não possuem conhecimento proposicional. Este artigo se concentra nos recentes argumentos anti-intelectualistas propostos por Carter e Pritchard. Procuo mostrar que os argumentos de Carter e Pritchard não são bem sucedidos e que, aplicando a epistemologia das virtudes ao debate, pode-se concluir que o conhecimento-como compartilha as mesmas propriedades epistêmicas que o conhecimento proposicional. Se isso é o caso, então é possível afirmar que o conhecimento-como é um tipo de conhecimento proposicional, deixando a salvo novamente o intelectualismo.

Palavras-chave: Epistemologia das virtudes. Conhecimento-como. Sorte epistêmica. Conhecimento proposicional.

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In contemporary philosophy, the beginning of the debate about knowledge-how can be traced back to Gilbert Ryle¹, when he showed the distinctions between the concept of know-that and know-how. For Ryle, knowing how is not a species of propositional knowledge but a different kind of mental state that is not propositional. To know how in this sense is to have a disposition that is exercised in a reliable way. It is different than having a single disposition, like a reflex. It is having an ability. In the sense, someone knows how to ride a bicycle when one has the disposition or ability to do it successfully. This thesis about knowledge-how is called *anti-intellectualism*.

Anti-intellectualism about knowledge-how had become dominant in epistemology until Jason Stanley and Timothy Williamson seminal paper called “Knowing How”². In their paper, Stanley and Williamson offer strong arguments in favor of the view that says that knowledge-how is a species of knowledge-that, of propositional knowledge. For Stanley and Williamson, *S* knows how to ride a bicycle if there is a proposition *w* such that *S* knows that *w* is a way to ride a bicycle³. This view is known as *intellectualism* about knowledge-how.

In the debate between intellectualism and anti-intellectualism about knowledge-how, some have argued that if intellectualism is correct and knowledge-how is a species of knowledge-that, then they must share the same epistemological properties. One of the most recent arguments was made by Carter and Pritchard⁴. Proposing a version of anti-intellectualism, Carter and Pritchard argued that propositional knowledge is incompatible with epistemic luck while knowledge-how is compatible with a kind of epistemic luck. Since knowledge-how does not share the same epistemic properties as propositional knowledge, Carter and Pritchard get the conclusion that knowledge-how is not a species of knowledge-that.

I want to argue in this paper that if we apply virtue epistemology theory of knowledge on this debate, it is possible to show that knowledge-how is not compatible with epistemic luck and that both knowledge-how and knowledge-that shares the same epistemic properties. I will be showing that Carter and Pritchard arguments are not strong enough

¹ See RYLE, Gilbert, *The Concept of Mind*, London: Hutchinson, [1949] 2009 (60th Anniversary Edition).

² See STANLEY, J. and WILLIAMSON, T., Knowing How, in: *The Journal of Philosophy*, 98:8 (2001), p. 411-444.

³ Id. *ibid.*, p. 432.

⁴ See CARTER, J. A. and PRITCHARD, D., Knowledge-How and Epistemic Luck, in: *Noûs*, 49 (2015), p. 440-440; CARTER, J. A. and PRITCHARD, D., Knowledge How and Cognitive Achievement, in: *Philosophy and Phenomenological Research*, 91:1 (2014), p. 181-199.

to support their version of anti-intellectualism if we consider virtue epistemology responses to Gettier and luck cases and bring these responses to the debate about knowledge-how.

This paper has the following structure. First, in section 2 some of the arguments that have been used against the intellectualists about know-how are presented. The arguments that I am going to present are based on the idea that there are cases where the agent has knowledge-how but does not have propositional knowledge because it is undermined by the presence of epistemic luck. In section 3 I am going to present Carter and Pritchard anti-intellectualism about know-how, which is the thesis that knowledge-how is a kind of cognitive achievement. In section 4 I am going to challenge Carter and Pritchard arguments against intellectualism and their anti-intellectualism thesis using the virtue epistemology solution to Gettier cases of propositional knowledge and the virtue epistemology explanation about testimony and cognitive achievement. If my arguments are right, I believe it shows that there is no case of knowledge how without knowledge that and it also shows that, if knowledge how is a kind of cognitive achievement, it is a kind of knowledge-that.

1 Against Intellectualism

Intellectualism about knowledge how is the thesis that says that knowledge how is a species of propositional knowledge. It is not sufficient to have an ability or disposition to F but it is necessary that the agent has a propositional knowledge p where this proposition has the form of “ w is a way to F ” and this knowledge is known under some form of practical representation. So if S knows how to dance tango, S must know at least under some form of practical representation the proposition – or propositions – p that states that w is a way to dance tango and in fact w is a way to dance tango. The intellectualist view can be summarized as follows: ‘ S knows how to F ’ is true if and only if there is some way w for S to F such that S stands in the knowledge-that relation to the proposition that w is a way for S to F , and S knows this proposition under a practical mode of presentation.

In order to show that intellectualism is false one could show a case where the propositional knowledge necessary for knowledge-how is undermined while knowledge how is not affected. A case like this shows that it is still possible to attribute knowledge-how without attributing knowledge-that to the agent. Stanley and Williamson⁵ describe a Gettier

⁵ See STANLEY, J. and WILLIAMSON, T., *Knowing How*, op. cit., 2001.

case for knowledge-how to argue that, when propositional knowledge is undermined, knowledge-how is also undermined. The case is the following:

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 randomizing device in the simulator's controls and intends to give all kinds of incorrect advice. Fortunately, by sheer chance the randomizing 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 colours. 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 fly⁶.

Stanley and Williamson's argument is that in cases like this, because propositional knowledge is undermined by epistemic luck, knowledge-how is also undermined, since both propositional knowledge and hence knowledge-how are incompatible with epistemic luck. But we can imagine that, in this case, Bob is able to execute the right instructions and actually fly a plane. Suppose that there is another flight simulator that is reliable and that gives to another subject, Paul, the same information that Bob's receive. What would be the difference between both subjects after finishing the training? Both Bob and Paul have the same true beliefs about how to flight a plane. The intuitions seems to go to the opposite way of Stanley and Williamson's conclusion because it seems that there is a good sense in which both subjects know how to fly.

While Stanley used the flight simulator case to show that know-how is incompatible with epistemic luck, Yuri Cath⁷ used an example with the same structure as the flight simulator case to show that know-how is compatible with epistemic luck while propositional knowledge is not. Cath's Gettier case is the following:

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 or 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

⁶ Id. *ibid.*, p. 435.

⁷ See CATH, Y., *Knowing How Without Knowing That*, in: BENGSON, J. and MOFFETT, M. (Eds.), *Knowing How: Essays on Knowledge, Mind and Action*, Oxford: Oxford University Press, 2011, p. 113-135.

instructions perfectly. And so there is a way, call it 'w1', such that Charlie now believes that w1 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 consult⁸.

In this example, it seems that Charlie knows-how to change a light bulb but, because Charlie belief that w1 is a way for him to change a light bulb is a luck belief that undermines his propositional knowledge about w1, he does not have knowledge-that. Cath's conclusion is that this case is an example of knowledge-how without knowledge-that, hence, intellectualism is false.

In both cases, the *flight simulator* and *lucky light bulb*, it seems that there is a strong intuition that the subjects are capable of doing what they learned to do in the sense that they know-how to do what they learned, but without knowledge-that, which was undermined because of the presence of epistemic luck.

According to Carter and Pritchard⁹, depending on the type of epistemic luck involved on the description of the cases, the intuition that propositional knowledge is undermined without undermining knowledge-how gets stronger. They describe two types of epistemic luck: *intervening luck*, that is the type of epistemic luck "which 'intervenes' between the agent's cognitive performance and her cognitive success,"¹⁰ and *environmental luck*, that is the kind of epistemic luck that is not related to any disconnection between the belief form process and the belief formed, but that makes the belief formed an unsafe belief, i.e., the agent could easily have been mistaken, forming a false belief instead of a true one.

Intervening luck is usually the epistemic luck involved in typical Gettier cases, as for example, the well-known case offered by Chisholm¹¹ where we can imagine an agent who looks at the field and formed the belief that there is a sheep in the field because she is looking at something that seems to be a sheep. But in fact she was not looking at a real sheep

⁸ Id. *ibid.*, p. 115.

⁹ See CARTER, J. A. and PRITCHARD, D., *Knowledge-How and Epistemic Luck*, op. cit., 2013.

¹⁰ Id. *ibid.*, p. 5.

¹¹ See CHISHOLM, R., *Theory of Knowledge*, Englewood Cliffs: Prentice-Hall, NJ, ²1977, p. 105.

but rather at something that was very similar to a sheep which is a dog dressed as a sheep because of a Halloween party. The swift here is that the dog was hiding from the agent view a real sheep that is actually in the field. In this case, the agent has a true belief – that there is a sheep in the field –, but this belief was not well formed because there is a kind of disconnection between the reality and how the belief was formed, and that is why the agent does not know that there is a sheep in the field.

Environmental luck is the type of luck that, when present, makes a well-formed belief an unsafe belief. One well-known example of environmental luck is Alvin Goldman barn façade case¹². In this case, we can imagine an agent, Henry, who is driving in the country side with his son and when he sees a barn he says: “That’s a barn” and forms the true belief that that’s a barn. But Henry does not know that he just entered a district full of barn façades that from a certain perspective (Henry’s perspective) look exactly like a real barn, but are just façades. The only real barn that exists on this district was the barn that Henry saw. So Henry belief is true and well-formed but he could have been easily mistaken if he drove just a little bit more and looked at one of the façades. If that happened, he would have easily form the false belief that that’s a barn. In this case, Henry belief is unsafe because of the presence of environmental luck.

Considering this distinction between intervening luck and environmental luck, Carter and Pritchard¹³ argue that Cath’s *luck light bulb* case as described is a case involving intervening luck and because of that, the intuitions about the diagnosis of the case are conflicting. But when the case is redescribed involving environmental luck, the intuitions change. They offer the following alternative version of Cath’s *luck light bulb* case:

[I]magine now a version of that case where it is specifically environmental epistemic luck that is involved. So rather than Charlie gaining his instructions on how to change a bulb from a fake guide, albeit by chance getting the correct information, suppose that the guide itself is entirely reliable and authoritative, but that Charlie could so very easily have opted for a fake guide instead. Imagine, say, that Charlie has a shelf-full of guides before him, all but one of which is fake, and that had he opted for one of the fake guides he would have ended up with incorrect information about how to change a bulb¹⁴.

¹² See GOLDMAN, A., Discrimination and Perceptual Knowledge, in: *Journal of Philosophy*, 73:20 (1976), p. 772.

¹³ See CARTER, J. A. and PRITCHARD, D., Knowledge-How and Epistemic Luck, op. cit., p. 8.

¹⁴ Id. *ibid.*, p. 8.

Their diagnosis is that while on Cath's case the intuitions about if Charlie knows how to change a bulb may be conflicting, when environmental luck is involved the intuitions that Charlie knows-how to change the light bulb gets stronger, since he learned the correct information from an reliable book. They also suggest to apply the "past self" test to this case:

Imagine that Charlie subsequently discovers that there was environmental epistemic luck in play in his acquisition of the information about how to change a bulb. Would he have any basis for thinking that his past-self did not know how to change a bulb? Surely not. After all, in discovering that it is merely environmental epistemic luck in play he also thereby discovers that the source of this information was authoritative"¹⁵.

According to Carter and Pritchard, applying the past-self test to the original case – the case involving intervening luck – gives us a different result, because Charlie would have found out that it was a fake source of information and it was mere luck that he had the correct information. Their conclusion is that because propositional knowledge is incompatible with any kind of epistemic luck, when there is environmental luck in play, like the alternative luck light bulb case, we have cases of knowledge-how without knowledge-that, showing that intellectualism is false.

2 Carter and Pritchard's Anti-Intellectualism

Carter and Pritchard argue that knowledge-how is not a species of knowledge-that because both knowledge-how and knowledge-that do not share the same epistemic properties. There are cases – they argue – of knowledge-how without propositional knowledge because there is epistemic luck involved and that epistemic luck undermines the propositional knowledge but not knowledge-how. They suggest that there is a similarity between knowledge-how and cognitive achievements, that is the incompatibility with intervening luck and compatibility with environmental luck.

One activity is an achievement when its success is *because* of the exercise of the relevant abilities involved. So for example, when a professional archer shot at the target and hits the bulls eye, the success was not because any kind of luck but simply because of the archer's abilities to shot. It was an achievement. Carter and Pritchard offer an example of a case where there is luck involved and where the luck undermines the achievement:

¹⁵ Ibid.

For suppose one skilfully fires a bolt at a target, and one hits the bull's-eye of that target, but that luck intervenes along the way – say, a gust of wind blows the bolt off course, and another gust of wind fortuitously blows it back on course again. Here we have success and the relevant ability on display, but due to the intervening luck at issue there is not the right kind of relationship between them to suffice for an achievement¹⁶.

In the case above, achievement was undermined by intervening luck. The shot was not successful because of ability. The shot success was because of the lucky gusts of wind. Achievements, as knowledge-how and knowledge-that are incompatible with intervening luck. What about environmental luck? Carter and Pritchard show the following case:

Imagine an archer who skilfully takes aim and who hits the bulls-eye without anything getting in the way betwixt shot and target. There is thus no intervening luck in play here. But suppose that there is environmental luck in play. Imagine, for example, that our archer's shot could so very easily have been affected by freak gusts of wind but in fact wasn't - she just happened to fire at the precise moment to avoid the freak gusts, which would have otherwise affected her shot. The archer's success is thus lucky, in that it is a success that could so very easily have been a failure, but where this luck is of the environmental rather than the intervening variety. Here is the crux: Is this archer's success any less of an achievement in virtue of being subject to specifically environmental luck?¹⁷.

For them, the answer to the question above is “no” since the archer's success is clearly because of her ability. Even if she could have been easily unsuccessful, it did not happen and everything that actually happened was the exercise of her ability and her success because of her exercise. That is why, according to Carter and Pritchard, environmental luck does not undermine achievements. And here is where achievements and knowledge-how meet, since both are compatible with environmental luck as opposed to propositional knowledge that is incompatible with this particular kind of luck.

Their next move is to show that since “[w]hat goes for achievements more generally also applies to specifically cognitive achievements”¹⁸ and since achievements and knowledge-how share the same epistemic properties, knowledge-how is a kind of cognitive achievement. To know how to *F* is not just to possess the ability to *F* but to successfully *F* because of one's cognitive abilities. The success cannot be lucky or

¹⁶ See CARTER, J. A. and PRITCHARD, D., Knowledge How and Cognitive Achievement, op. cit., p. 3.

¹⁷ Id. *ibid.*, p. 5.

¹⁸ *Ibid.*

somehow accidental. It must be because of the relevant cognitive abilities. Their view is based on Ted Poston's anti-intellectualist view, which says that "one knows how to *F*, if one can intelligently and successfully *F*."¹⁹ To avoid the possibility of luck success, Carter and Pritchard changed Poston's view to the following: "If one successfully *F*s because of one's ability (*vis-à-vis F*), then one knows how to *F*."²⁰

The difference between Poston's view and Carter and Pritchard's view is that Poston's view does not avoid luck success. I can intelligently and successfully shot and hit at the target, but my success may be because of a gust of wind, and not because of my intelligent action. Carter and Pritchard's view only accept as a know-how instance actions that are successful *because of* the intelligent action, *because of* the relevant cognitive abilities.

In order to show the strong connection between knowledge-how and cognitive abilities, Carter and Pritchard show an example which, according to their view, is an example where there is no success *because of* the relevant cognitive ability; hence, no knowledge-how. The example is the following:

[S]uppose that Charlie finds out how to change a light bulb by receiving this information from what he knows to be a reliable information source (and that there is, in addition, nothing epistemically amiss in his acquisition of this information), and that Charlie passes this information onto his young son. Let us stipulate that Charlie's son exhibits the same level of cognitive ability as we saw exhibited in the testimonial case considered above. That is, while he wouldn't have asked just anyone or believed just anything that he is told, it is nonetheless the case that for the most part he is merely trusting the word of his father. Nonetheless, his father is indeed authoritative in this regard, and the environment is epistemically friendly in all the relevant respects (in particular, it is not the case, for example, that Charlie's son could so very easily have been deceived by his father)²¹.

In the case above, Charlie knows-how to change a light bulb since his success is *because of* his cognitive abilities. There was no luck involved and he learned from a trustful epistemic source. But the same does not apply for Charlie's son, according to Carter and Pritchard. Charlie's son *is able* to change a light bulb, but knowledge-how is not the mere possession of abilities, so being able does not suffice for knowledge-how. They say that:

¹⁹ See POSTON, T., Know-How to be Gettiered?, in: *Philosophy and Phenomenological Research*, 79 (2009), p. 744.

²⁰ See CARTER, J. A. and PRITCHARD, D., Knowledge How and Cognitive Achievement, op. cit., p. 15.

²¹ Id. *ibid.*, p. 13.

it is required that one's cognitive success should be appropriately related to one's cognitive ability, such that the former is because of the latter. Where this is not the case, as in the testimonial example involving Charlie's son just considered, then the agent concerned does not qualify for knowledge-how²².

Because Charlie's son simply trust on his father testimony, they argue that even though Charlie's son knows that this is how light bulb is changed on the basis of testimony, he does not know how because his success is not related to his cognitive abilities. In order to have knowledge-how it is necessary that the successful output is a result of the relevant cognitive abilities of the agent.

3 Arguments Against Carter and Pritchard's Anti-Intellectualism

Carter and Pritchard anti-intellectualism is based on the idea that knowledge-how and knowledge-that do not share the same epistemic properties and because of that, they come apart when related to epistemic luck. Propositional knowledge is incompatible with both intervening and environmental luck while knowledge-how is compatible with environmental luck. Achievements, as knowledge-how, is also compatible with environmental luck, coming apart from knowledge-that also. They argue that since achievements share the same epistemic properties as knowledge-how and since what goes for achievements also goes for cognitive ability, knowledge how can be defined as a success because of cognitive abilities.

The arguments they use to support their anti-intellectualist thesis are similar to the arguments used against virtue epistemology. I will now briefly present virtue epistemology to show how virtue epistemology answers the epistemic luck challenges and apply this answers as a defense of intellectualism about knowledge how.

Virtue epistemology, on its reliabilist form, is the thesis which states that propositional knowledge is a kind of success, a cognitive success because of the exercise of cognitive ability. Examples of cognitive abilities are memory, perception and deduction. If, for example, my vision is a reliable cognitive ability and if I am in normal circumstances, I can look around and form the true belief that there is a bottle of water in the table. It is correct to say that I know that there is a bottle of water in the table because this true belief was formed because of a cognitive success. For virtue epistemology, propositional knowledge is a cognitive achievement.

²² Ibid.

Usually, cognitive abilities are described through analogies with other practical abilities. One analogy that is commonly used to explain the properties of a successful cognitive ability is the archer's analogy that I explained above. When an archer aims and shoot the target, the shot can be accurate, because it hits the target with precision; it can manifest the archer's skills and it can be successful because of the manifestation of the skills. If the shot is accurate because skilled, then it is an apt shot. If the shot is accurate not because it is a manifestation of a skill but because of a gust of wind, for example, then it is not an achievement. So, a shot is only an achievement, when it is accurate, when it hits the target *because* of the agent's abilities.

Cognitive performances can be described similarly. If my belief is true because of my cognitive ability, it is a cognitive achievement, and because of that, it is propositional knowledge. This formulation seems to successfully explain why in classical Gettier cases – cases that involve intervening luck – we do not have knowledge. For example, suppose I see a sheep in the field and then form the belief that there is a sheep in the field. This belief is true, because there is in fact a sheep in the field but it was not what I was looking at. I made a mistake and what I thought was a sheep was actually a dog wearing some sheep costumes because of a Halloween party. My belief was true but not because of my cognitive ability. It was not a cognitive achievement, and that is why it is not knowledge.

But how does virtue epistemology explain cases about unsafe knowledge, i.e., cases where environmental luck is involved?

One of the solutions proposed recently is John Greco's solution²³. In Greco's view, it is possible to have knowledge in some situations where environmental luck is present. His view is that a success "is attributable to S's ability just in case S's ability contributes to that success *in the right way*"²⁴, where to contribute in the right way means "in a way that would regularly serve relevant purposes."²⁵ Propositional knowledge is the true belief formed by the right sort of intellectual ability in the right sort of way²⁶, which is the way that would serve for the relevant purposes.

²³ Ernest Sosa also develops a solution to cases where environmental luck is present appealing to his distinction between *animal knowledge* and *reflective knowledge*. For more about Sosa's solution, see SOSA, E., *A Virtue Epistemology: Apt Belief and Reflective Knowledge*, Oxford: Oxford University Press, Vol. 1, 2007; IDEM, *Knowing Full Well*, Princeton – Oxford: Princeton University Press, 2011.

²⁴ See GRECO, John, A (Different) Virtue Epistemology, in: *Philosophy and Phenomenological Research*, 85:1 (2012), p. 14.

²⁵ Id. *ibid*.

²⁶ *Ibid.*, p. 19.

And what are those purposes? Greco recall Craig's²⁷, Hawthorne's²⁸ and Stanley's²⁹ ideas that the concept of knowledge functions to flag good information and good sources of information and that knowledge is for use in practical reasoning. Greco's idea is that the concept of knowledge should serve its purpose of flagging good information and sources of information for use in practical reasoning. That means that an agent has knowledge if her true belief is produced by the right sort of ability in the right sort of way in order to fill all the informational needs present in the situation.

How this solution deal with barn façades cases? Greco says that “many of the examples discussed by contemporary epistemology are under-described, and precisely in a way that matters on the present account”³⁰. And this is because the barn façade case, as described, does not provide all the relevant informational need for the relevant practical context. Depending on the practical context, it is possible to have knowledge even when environmental luck is present. To show this, Greco gives the following example:

Working Farm case: Patrick is on the one working farm in Barn Façade County – it has one real barn and no barn façades. Patrick, by the way, knows nothing about the many barn façades in the area. We ask Patrick to retrieve a shovel from the barn located just ahead, and he starts walking in that direction³¹.

He writes that the correct answer in the question “Does Patrick know that there is a barn ahead?” depends on facts about the relevant practical environment. He writes that “if our conversational context picks out a practical environment defined only by Patrick's task of retrieving a shovel from the barn, the claim ‘Patrick knows there is a barn’ is true relative to that context”³², because on that context all the relevant cognitive abilities were used in the right way to serve the informational needs of this practical environment. It means that what is important when evaluating knowledge cases is to understand the practical environment and the informational needs of the situation. Depending on how the situation is set up, environmental luck does not undermine propositional knowledge.

²⁷ See CRAIG, E., *Knowledge and the State of Nature: An Essay in Conceptual Synthesis*, Oxford: Clarendon Press, 1990.

²⁸ See HAWTHORNE, J., *Knowledge and Lotteries*, Oxford: Oxford University Press, 2004.

²⁹ See STANLEY, J., *Knowledge and Practical Interests*, Oxford: Oxford University Press, 2005.

³⁰ See GRECO, John, Episteme: Knowledge and Understanding, in: TIMPE, Kevin and BOYD, Craig (eds.), op. cit., p. 23.

³¹ Id. ibid.

³² Ibid.

Another argument that Pritchard uses against virtue epistemology is the testimony argument. As we saw before, Carter and Pritchard says that in cases of testimony, where the hearer simply trusts the testifier, there is no cognitive achievement. Pritchard also uses this same argument against virtue epistemology, to show that propositional knowledge is not a cognitive achievement. Pritchard offer the following example:

Our protagonist, whom we will call 'Jenny', arrives at the train station in Chicago and, wishing to obtain directions to the Sears Tower, approaches the first adult passer-by that she sees. Suppose further that the person that she asks has first-hand knowledge of the area and gives her the directions that she requires. Intuitively, any true belief that Jenny forms on this basis would ordinarily be counted as knowledge³³.

Pritchard's diagnosis is that:

[g]iven that the true belief needs to be primarily creditable to the agent in order for it to count as a cognitive achievement, it follows that while Jenny has knowledge in this case she does not exhibit a cognitive achievement³⁴.

Some theories of testimony say that it is possible to an agent to gain knowledge simply by trusting the testifier. For example, when a father teaches his son or when the teachers teach kids at school. They are simply trusting the testifier and obtaining knowledge. In cases like those, Pritchard says, all the cognitive success seems to be more down to the informant than to the agent. The agent cognitive abilities play just a minor role in generating this cognitive success. And because of that, it is an example of knowledge without cognitive achievement, undermining virtue epistemology definition of knowledge-that.

As we saw before, Greco's virtue epistemology says that *S* has knowledge just in case *S*'s true belief is produced by the right sort of ability in the right sort of way. And this is exactly what happens on testimony cases. Jenny uses all her relevant abilities necessary for that situation, as for example, choosing the right person to ask and not a dog or a light pole, and using her right sort of ability, on the right sort of way, she fulfilled her informational needs for her practical context.

Greco³⁵ shows an example that helps to make it clear. Imagine a soccer game, where Ted receives an almost impossible but brilliant

³³ See PRITCHARD, D. H.; MILLAR, A.; HADDOCK, A., *The Nature and Value of Knowledge: Three Investigations*, Oxford: Oxford University Press, 2010, p. 40.

³⁴ Id. *ibid.*, p. 41.

³⁵ See GRECO, John, *Achieving Knowledge: A Virtue-Theoretic Account of Epistemic Normativity*, Cambridge: Cambridge University Press, 2010, p. 83.

pass and using his abilities he scores a goal. In this situation, Ted is not responsible for the brilliant pass, and if it was not because of the pass from to other player, Ted would not easily score a goal. But Ted used his right sort of abilities in the right way to achieve his desirable results. Now imagine another similar situation, where Ted is not paying attention and did not see the ball coming from the other player. The pass was brilliant and almost impossible, and the ball hits Ted's head and goes into the goal. Here, Ted did not use his right abilities in the right way, so it was not Ted's achievement. Testimony cases are similar to Ted's case when he scores the goal using his abilities. Even though the pass was brilliant and most of the part of the situation was made by other players, it was his achievement because he used the right sort of abilities on the right sort of way. Greco's conclusion is that:

[...] credit for success, gained in cooperation with others, is not swamped by the able performance of others. It is not even swamped by the outstanding performance of others. So long as one's own efforts and abilities are appropriately involved, one deserves credit for the success in question³⁶.

In sum: Carter and Pritchard argue that propositional knowledge is independent from achievements because achievements are compatible with environmental luck while propositional knowledge is not and because there are cases of propositional knowledge (testimony cases) without achievement. But there are good replies to both arguments, and it seems that if those replies are correct, achievements and propositional knowledge are not independent and virtue epistemology thesis that knowledge-that is a cognitive achievement is safe from again.

How virtue epistemology can be used to explain Gettier cases and testimony cases about knowledge how? First, let's take a closer look at the testimony case: for Carter and Pritchard, it is a case of knowledge-that without knowledge-how because there is no cognitive achievement and because the cognitive success was not appropriately related to Charlie's son cognitive ability. But this is simply not intuitive. We can imagine a lot of ordinary cases similar to this one, as, for example, someone that wants to learn how to take a screen shot with his smartphone and is told that he just needs to press and hold at the same time the power and home button. Having learned it, he is able to do so, and he is even able to teach people about it, so why should we say that he does not know how to take a screen shot at his phone? Suppose we apply Carter and Pritchard past-self test at the testimonial cases: I believe that the agents, knowing that

³⁶ Id. *ibid.*

the testifiers were reliable, would say that they knew that w was a way of doing F and that they knew how to F . And it is because the agents, on those kinds of situation, as on the soccer player example, used all the relevant abilities on the right sort of way to achieve the desirable result. So testimony cases like Carter and Pritchard cases are actually cases of knowledge-that, cognitive achievements and knowledge-how.

We can suppose that there is a person called Beli, who is so naïve that believes everything people say, no matter who is telling and no matter what she had been told. She simply trusts people and believes what people say. Is this case similar to the testimony cases above? The answer is 'no', because Beli is not using her right abilities on the right sort of way in order to produce knowledge. Beli's method of obtaining information is not a reliable one. She has no information filter, she does not discriminate liars from trustful people and so on – that is why it is hard to attribute her in most of testimony cases knowledge-that or cognitive achievement, and hence, knowledge-how³⁷.

The explanation about the knowledge-how cases with environmental luck using virtue epistemology is similar to the explanation about knowledge-that and environmental luck. Since propositional knowledge is cognitive achievement for virtue epistemology, it is important to understand what the informational needs of each situation are in order to evaluate if the relevant abilities were used in the right sort of way to serve for the relevant informational and practical needs. In the light bulb case, all Charlie wants is to learn how to change an ordinary light bulb in an ordinary situation. The environmental luck in play is not enough to undermine the propositional knowledge that he obtains because he used his right sort of abilities in the right sort of way to fulfil the informational needs for his practical reasoning and actions³⁸. Carter and Pritchard are right to say that on this example the intuition that Charlie has knowledge-how is stronger. But it is also stronger the intuition that he has propositional knowledge since his source of information is a reliable one and he used all his relevant abilities in the relevant way.

When explaining their anti-intellectualism about knowledge-how, that says that if one successfully F 's because of one's ability (*vis-à-vis* F), then one knows how to F , Carter and Pritchard wrote in a note that:

³⁷ For more on testimony and knowledge-how, see HAWLEY, K., Testimony and Knowing How, in: *Studies in History and Philosophy of Science*, 41 (2010), p. 397-404.

³⁸ Other philosophers like HAWTHORNE, J., Implicit Belief and *A Priori* Knowledge, in: *Southern Journal of Philosophy*, 38 (2000), p. 203, also argues that depending on the context, luck does not undermine knowledge. He says that "in many contexts, gettierized true belief is knowledge". If this idea is correct, then an anti-luck condition is not a necessary condition on knowledge although it is still an important condition on the analysis of knowledge.

[i]t is important to emphasize here that the relevant success element in the view we are proposing is not merely the acquisition of a true belief; if it were, it would be tempting to view our proposal as a kind of intellectualism. Rather, the success element is a kind of outcome; in the case of riding a bike, the success element will be moving one's arms and legs in a particular way that counts as successfully riding a bike³⁹.

Now, considering that virtue epistemology says that propositional knowledge is cognitive achievement and that environmental luck does not necessarily undermine propositional knowledge, then we can view Carter and Pritchard's account as an intellectualist thesis, since the relevant success element is actually the acquisition of a true belief formed in the right sort of way to serve the relevant informational need on that practical context. To say that one successfully *F* because of one's ability can also mean that, because it is a cognitive achievement, one successfully formed the propositional knowledge that *w* is a way to *F* and hence knowledge-how is a species of knowledge-that.

Conclusion

The debate between intellectualism versus anti-intellectualism about knowledge-how is still an open debate on philosophy, with good arguments on both sides. One of the arguments that appeared in recent literature is the argument that tries to show cases of knowledge-how without knowledge-that because the propositional knowledge was gettierized, undermined by luck. In this paper I analyzed Carter and Pritchard's arguments and their anti-intellectualism thesis and I intended to show that their arguments are not strong enough when considering recent virtue epistemology replies about Gettier cases of propositional knowledge and about testimony. If my arguments succeed, then I believe that they show that there is no case of knowledge-how without knowledge-that and they also show that intellectualism about know-how, together with virtue epistemology is still a viable way to explain the relation between these two kinds of knowledge.

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³⁹ See CARTER, J. A. and PRITCHARD, D., Knowledge How and Cognitive Achievement, op. cit., p. 195, footnote 27.

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