STUDIA UBB. PHILOSOPHIA, Vol. 65 (2020), 3, pp. 11-31
(RECOMMENDED CITATION)
DOI:10.24193/subbphil.2020.3.01

# INTELLECTUALISM ABOUT KNOWLEDGE HOW AND SLIPS

**CATHRINE V. FELIX***

**ABSTRACT.** This paper argues that slips present a problem for reductive intellectualism. Reductive intellectualists (e.g., Stanley and Williamson 2001; Stanley 2011, 2013; Brogaard 2011) argue that *knowledge how* is a form of *knowledge that*. Consequently, *knowledge how* must have the same epistemic properties as *knowledge that*. Slips show how *knowledge how* has epistemic properties not present in *knowledge that*. When an agent slips, she does something different from what she intended; nonetheless, the performance is guided by her *knowledge how*. This reveals a divide between the knowledge that actively guides behaviour: the *knowledge how* that the agent applies sub-consciously; and the *knowledge how* she intends to guide her behaviour in the first place, which she is under the illusion of acting on even as she slips. I argue that this divide between two levels of *knowledge how* operative in the slip case has no parallel when it comes to *knowledge that*. Therefore, *knowledge how* cannot be reduced to *knowledge that*.[1]

***Key words****: Knowledge how, knowledge that, intellectualism, slips, Ryle, Stanley.*

## Introduction

Knowing how to do things is a key part of everyday life. Posting a letter, tying one's shoelaces, and making coffee are all actions people know how to perform and *do* perform daily. How one should conceive of this knowledge, however, is notoriously hard to pin down. The field is roughly split between so-called anti-intellectualists who think that knowledge how and knowledge that are distinct kinds, and so-called intellectualists who think that knowing how to do something just is knowing a truth.[2]

* Norwegian University of Science and Technology, E-mail: cathrine.felix@ntnu.no

[1] Thanks to Santiago Amaya, Dan Egonsson, Emmanuel Genot, Olav Gjelsvik, Ingvar Johansson, Katarzyna Paprzycka, Joel Parthemore, Björn Petersson, Wlodek Rabinowicz, Oscar Ralsmark, Andreas Seland and anonymous reviewers for comments on this article. Thanks also for comments from participants, Jason Stanley in particular, at the 2012 Lund-Rutgers graduate conference, and to participants at the higher seminar in Theoretical Philosophy, Lund University, 2018.

[2] Some radical anti-intellectualists defend the view that *knowledge that* is a species of *knowledge how* (Hetherington, 2006). I will not discuss that view here.

Gilbert Ryle introduced the distinction to contemporary philosophy when he described "the intellectualist legend" (Ryle, 2000 [1949]: 29): "champions of this legend are apt to try to assimilate knowing how to knowing that by arguing that intelligent performance involves the observation of rules, or the application of criteria". Ryle claimed that intellectualists are mistaken in regarding knowledge that as the quintessential foundation for all intelligent performances. He set out to show that knowledge how also bears the mark of intelligence, and that people routinely distinguish between knowledge how and knowledge that in everyday life, when thinking about behaviour. That is, one typically distinguishes between the truths people know and the things they know *how to do* (Ryle, 2000 [1949]: 28):

> Theorists have been so preoccupied with the tasks of investigating the nature, the source and the credentials of the theories that we adopt that they have for the most part ignored the question of what it is for someone to know how to perform tasks. In ordinary life, on the contrary, as well as in the special business of teaching, we are much more concerned with people's competences than with their cognitive repertoires, with the operations than with the truths that they learn.

The relation between knowledge how and knowledge that has been a heated topic ever since. Jason Stanley's recent work has stirred up debate once again.[3] In what follows, I therefore mainly focus on Stanley's position.[4]

The point of the argument defended here is that there is a difference between how awareness and lack of awareness is manifested in cases of knowledge how and knowledge that.[5] When an agent slips, I argue, the agent has to be, given Stanley's theory, split between the proposition the agent is conscious of, and the proposition the agent is actually practically manifesting, and *it is this split in itself that points to differing epistemic properties for the two forms of knowledge, because this split is unique to knowledge how. Section one* offers a brief introduction to

[3] A quote from Yuri Cath, 2019: 1, is telling: "Stanley and Williamson's paper helped to set off an explosion of new work on knowledge-how". He refers to their 2001 paper.

[4] This is a common strategy. Many scholars focus mainly on Stanley's approach.

[5] The backbone framework here is the famous Anscombean idea of so called "why"-questions. Stanley refers to this idea (see for ex. p. 185 in *Know How*). Anscombe writes "a certain sense of the question 'why' is given application; the sense is of course that in which the answer, if positive, gives a reason for acting." (Anscombe, §5 in *Intention*) Something is an intentional action, if it makes sense to ask the agent why she did it. If awareness is missing, the agent lacks non-observational knowledge of what she is doing. This is relevant because Stanley (mistakenly, I argue) holds that his account is compatible with the Anscombean idea. Slips are non-intentional actions the agent is unaware of performing, she does them subconsciously.

Stanley's intellectualism. *Section two* discusses a challenge against the intellectualist, the transferability problem. This challenge is relevant to the slip challenge as well. *Section three* explores another challenge against the intellectualist that is relevant to the slip case, namely epistemic luck. The epistemic luck case is important both because it shows some relevant cracks in the intellectualists' argument, and because it can be interpreted as an inverted case of a slip, thus help illuminate the nature of slips. *Section four* introduces and argues for the slip challenge against the intellectualist position. The final part of the paper discusses three possible objections to the argument from slips.

## 1. Reductive intellectualism toward knowledge how

Contra Ryle, Stanley claims (2013: 190) that "it is only when our behaviour is guided by intellectual recognition of truths that it deserves to be called 'intelligent'". He defends a reductive intellectualism[6] according to which knowledge how has the same epistemic properties as knowledge that: The two share a set of core characteristics, and the former can be seen as a variation on the latter. This is not to say that the two are exactly the same: Stanley allows that certain of their properties may differ; but such properties are not of a kind to challenge his reductive account, i.e. these differing properties do not undermine the view that knowledge basically consist in the grasp of a propositional truth.

Stanley's favoured example is swimming, claiming that, when someone learns to swim, what she learns is the propositional truth or truths about swimming. More generally, "knowing how to do something amounts to knowing a truth" (Stanley, 2013: 190) – which, for Stanley, means grasping a proposition. Knowing how to do something means grasping a proposition in a practical way. *Prima facie*, Stanley seems to offer a promising account of knowledge how: his distinction between a practical way of grasping a proposition and a theoretical way of doing so seems to do justice both to the differences between these ways of knowing and to their similarities: in particular, how they respond to the same facts. If knowledge how has the same epistemic properties as knowledge that, it requires no separate account, and knowledge receives a unified treatment: a clearly attractive consequence.

[6] I will often just refer to reductive intellectualism as "intellectualism" even though there are other forms of intellectualism: e.g., objectualist intellectualism (Bengson & Moffett, 2011).

## 2. Practical competence

That said, Stanley's account faces a basic problem that any version of reductive intellectualism needs to solve, namely that knowledge about how something is done does not transfer[7] directly into practical competence. Someone can know how something is done without knowing how *she* can do it.

Consider Jenny, who has observed her neighbour install a telephone – including all the necessary wall wiring – and so gained some knowledge about how this can be done. Nevertheless, she might not be able to do the same herself, if asked, even with a perfect memory of the event. She might read all the available manuals and still not manage it, because wiring and such demands practical skill.

Clearly, one can have propositional knowledge of how a thing is done without being able to put that knowledge into practical action. This poses a problem for Stanley, as his view seems to erase the distinction between theoretical knowledge and practical competence: both are propositionally structured and have essentially the same epistemic properties; one might therefore expect the one to transfer more readily into the other. The challenge Stanley faces is to allow them to have the same core epistemic properties; and, at the same time, explain why knowledge how cannot be transferred propositionally, in the same way as knowledge that.

Stanley's solution is to say that, for an agent to act skilfully, she must entertain "a practical way of thinking" (Stanley, 2013: 124-130) concerning the true proposition(s) she knows (i.e. her knowledge how). She must grasp in what way an action can be performed *and* be able to perform the action under relevant parameters of normality: Jenny must apply the information she has acquired "in a first-person way" (124)[8], that is, she must relate it to her own practical capacities. This requires more than acquisition of facts.[9]

Consider Stanley and Williamson's original account of knowledge how, according to which *S* knowing how to Φ consists in *S* knowing some means *w* such that *w* is a way to Φ, while entertaining the proposition that *w* is a way for *S* to Φ under a so-called *practical mode of presentation*. Stanley and Williamson write (2011: 37 n18):

---

[7] For a thorough treatment of this problem, see Glick, 2015. Note that he describes it as "the sufficiency problem".

[8] To "acquire facts" in the sense described here is, roughly, analogous to acquire information. More specifically, it is to think of a fact in "a practical way" and to relate it to oneself such that one can act practically on it (manifest it in action). Stanley takes inspiration from Peacocke and Frege see for ex. p. 124 *Know How*: "To think of an object in a first-person way is for that object to occupy a certain functional role".

[9] See also the discussion below regarding Stanley's claim that knowledge how need not consist of the ability to execute a skilled action.

> if someone entertained a way of riding a bicycle by possessing a complete physiological description of it, that might also give them *de re* knowledge of that way, though not under a practical mode of presentation.

By making this distinction between *de re* and *de se* knowledge, Stanley and Williamson can capture the difference between knowing how some person can perform an action: *de re*; and how one can perform that action oneself: *de se* (see also Stanley, 2013: ch. 3).[10]

To recap: reductive intellectualism understands knowledge how as a form of knowledge that. The two have a shared core of epistemic properties, the most important of which is that both consist in grasping true propositions. Stanley meets the transferability problem faced by any reductive intellectualist by introducing the idea of a practical mode of presentation. This idea, however, has received much critical attention recently. Opponents of intellectualism have argued that the concept needs a more detailed definition before it can do the work the intellectualist demands of it (Glick 2015; Koethe 2002; Löwenstein 2017; Nöe 2005; Rosefeldt 2004; Schiffer 2002; Stalnaker 2012).[11] Thus, that the intellectualists have yet to give the theory of knowledge how that they claim to have given. Glick (2015 p. 546) sums the critique up neatly:

> Philosophers are familiar with the notion of a mode of presentation, but *practical* modes of presentation are an innovation. Critics of Stanley and Williamson have worried that it is simply unclear what PMPs [practical modes of presentation] could possibly be, and thus that a theory of know-how relying essentially on PMPs cannot be taken seriously.

This issue needs a more detailed investigation. The problem for the intellectualist is that *S* can know a proposition *p* without knowing how to transfer *p* into action, for example one could know that *w* is a way to ride a bike without being able to ride a bike oneself. In his defence of intellectualism Stanley (2013) suggests that knowledge how must comprise a certain kind of grasp: a "practical" grasp of a proposition enabling the agent to apply the truth she has acquired to her own agency ("a first person way of thinking" p. 85-86). So knowledge how does not consist of a propositional truth *per se* but rather a "practical" grasp of that propositional truth;

[10] The matter is actually more complex, but this brief description should suffice for my argument.

[11] In addition to Stanley and Williamson themselves, the notion has been defended by Brogaard, 2009, and Pavese, 2015. Brogaard argues that knowing how to Φ consists in knowing that one has a certain kind of ability, whereas Pavese's defence is based on an analogy between practical modes of presentation and computer programs.

and so the answer to a question about knowledge how does not consist of a proposition *per se* but of a "practical" grasp of that proposition, which is what constitutes the skill. Crucially, when an agent transforms her skill into practice, she does so under "a practical mode of presentation" (2011). The problem with this is that Stanley also argues (2013: 126-128) that knowing how to do something need not mean being capable of doing it i.e. knowledge how need not consist of the ability to execute a skilled action. So, what exactly is the 'practical presentation' in question?

A closer look at Stanley's claim is illuminating. It rests on three examples, two of which are taken from Carl Ginet. Ginet's eight-year-old son is not strong enough to lift a certain box; nonetheless, Ginet and Stanley think, he must be said to know how to lift it, because he knows how to lift boxes in general. Stanley writes (2013: 128): "Ginet's son knows how one *could* lift one hundred pounds off the floor… ." The second example concerns an expert skier who is unable to ski down a hill because of stomach cramps. Certainly, he knows *how* to ski down the hill, even though he cannot execute the ability at the moment. The third example, taken from Stanley and Williamson (2001: 416), concerns a concert pianist who loses both arms. Obviously she can no longer play the piano but, given her many years of practice, she still knows how to do so. Stanley believes that, together, these examples support the view that knowledge how need not entail the ability to execute a skill. However, it seems odd that this special, practical kind of grasping need not enable one to execute the relevant skill, and not just because of immediate circumstances such as being too young, having stomach cramps or losing one's arms. In other words, it seems odd that one can grasp a proposition "practically" without being able to act on it. Remember that the very reason for why Ryle separated knowledge how from knowledge that in the first place was to make room for the reality that is the practical execution of actions. What Stanley's intellectualism risks leaving one with is a notion of knowledge how that is practical only in name.

The discussion of practical modes of presentation is at the core of the intellectualist project. The philosophical explanation of knowledge how that the intellectualist argues for is missing a crucial element if she cannot offer a convincing explanation of what it means to relate to a proposition in a practical mode of presentation. Admittedly, this debate is given the briefest of presentation here; the interested reader should confer with the literature on the topic. I will, however, return to the issue in the section of the paper where I develop the argument from slips; an argument to the effect that the intellectualist project fails to account for the existence of slips of action. An important part of this argument is precisely the critique that the notion of a practical mode of presentation is supposed to do much explanatory work without itself having been spelled out properly.

## 3. Epistemic Properties

I would like both to elaborate the intellectualist's main points and investigate the principal criticisms against them. I begin with the matter of epistemic properties: Stanley argues that knowledge how and knowledge that have the same core epistemic properties, but what exactly does this mean?

A property is an attribute that inheres in an object: e.g., most printed books have the property of being rectangular. Knowledge how and knowledge that share the key property of being grasped by the agent as propositional truths. If knowledge how and knowledge that have the same epistemic properties, this means that they are equal in terms of how they are manifested in an agent.

A common criticism of reductive intellectualism is to argue that knowledge how and knowledge that do *not* manifest in the same way in agents, most commonly one argues that there are no Gettier cases for knowledge how (Poston, 2009). Stanley thinks this is mistaken, and in defence of his claim offers the aspiring pilot Bob (2011: 206):

> 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 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 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 fly.

Bob's situation is designed to be straightforwardly analogous to a standard Gettier case for knowledge that. Just as in the standard case, success follows from mere epistemic luck rather than epistemic agency. Bob makes all the correct moves by sheer accident, thus may be said not to know, genuinely, how to fly.

Poston has objected that the role played by sheer accident does not seem as devastating in cases of knowledge how as of knowledge that: there is a sense in which Bob does learn how to fly (Poston, 2009). That he has done so through a series of freak happenings is immaterial, and this case, at least, is not a convincing Gettier case for knowledge how. Stanley replies that Poston's rebuttal implicitly presupposes that there can be no Gettier cases for knowledge how. He extracts the following premises:

(P1) Gettier-cases for know-how, if they exist, require that the subject intelligently and successfully ϕ-s, where ϕ ranges over actions.

(P2) If one can intelligently and successfully ϕ, then one knows how to ϕ.

Stanley accepts P1 but rejects P2. He (2011: 13) quotes a case from Bengson, Moffett, and Wright (2009):

> Irina, who is a novice figure skater, decides to try a complex jump called the Salchow. When one performs a Salchow, one takes off from the *back inside* edge of one skate and lands on the *back outside* edge of the opposite skate after one or more rotations in the air. Irina, however, is seriously mistaken about how to perform a Salchow. She believes incorrectly that the way to perform a Salchow is to take off from the *front outside* edge of one skate, jump into the air, spin, and land on the *front inside* edge of the other skate. However, Irina has a severe neurological abnormality that make her act in ways that differ dramatically from how she thinks she is acting. So, despite the fact that she is seriously mistaken about how to perform a Salchow, whenever she actually attempts to do a Salchow (in accordance with her misconceptions) the abnormality causes Irina to unknowingly perform the correct sequence of moves, and so ends up successfully performing a Salchow.

Irina can perform the Salchow. She does it intelligently, reliably, and successfully based on her intentions. Yet, she does not really know how to perform the Salchow. In fact, a study reported by Bengson, Moffett, and Wright (2009) showed that 86% of test subjects asked about the case thought that Irina was "able" to do the Salchow while only 12% thought that she "knew how" to do it: thus, supporting Stanley's claim that Poston's second premise is false. Stanley's Irina anecdote is not without problems: one could e.g. complain that the example is nothing but a philosopher's construct and question the formulations in the questionnaire.[12] Moreover, the question under consideration is not of a democratic nature, so an appeal to test subjects opinion is not really revealing. What's philosophically interesting is rather the reasons behind the opinions.

In sum, there is a consensus in the debate that knowledge is incompatible with the epistemic luck present in Gettier cases, but the problem seems less devastating for knowledge how thereby revealing a split between the epistemic properties of knowledge that and knowledge how. This is a severe problem for the intellectualist, and must be replied to convincingly. Several scholars have argued

[12] Stanley is aware of this and addresses it in a brief footnote before setting it aside (Stanley, 2011: p. 235, n.6).

that a reply has yet to be provided by the intellectualist, for example Carter and Pritchard 2013, Cath 2011 and Löwenstein 2017.

The discussion is relevant to the project of this paper because it is illuminating to compare epistemic luck cases to cases of slips as the epistemic luck case can be interpreted as a case of an *inverted slip*. Every epistemic luck case is based on the premise of an unreliable epistemic process that through sheer coincidence ends up in a state of – at least, superficially – correct knowledge or competence. The slip, on the other hand, is a case where a subject with reliable knowledge how and competence, ends up making a mistake in performance, thereby acting without manifesting said competence. The structure of the epistemic luck case is the opposite of the structure of slip case, though defined through the same concepts of coincidence and reliability. I am not suggesting any form of deeper connection between the two phenomena. However, I believe it is important to emphasize that coincidence affects cases of knowledge that and knowledge how differently, and that this consideration strengthens the view that the two types of knowledge ought not be conflated.

## 4. The argument from slips

A slip is a non-intentional action that an agent performs without being aware of it. Slips exist along a spectrum of levels of inattention stretching from complete ignorance, to a vague sense of something being amiss, to a full realisation immediately following the act. However, in every case, full awareness is lacking at the time of the execution. At the time of the action the agent is under the illusion that she acts according to plan, otherwise, the slip would have been avoided.

Slips are crucially different from mistakes made because of false beliefs. Consider Donald Davidson's example of a man who mistakenly boards a plane heading to London, Ontario. The man is wrong about the plane's destination; he intends to go to London, England and falsely believes that the plane marked "London" is crossing the Atlantic (Davidson, 2001: 84-85). Slips are not like this. The agent who slips has no such false belief, in a misspelling, for example, one knows perfectly well how to spell the word one is accidently misspelling. The agent who slips acts on full-blown know-how with skill, but slips, nonetheless.

In the case of slips[13], an agent acts contrary to her governing intentions (Amaya, 2013; Anscombe, 2000; Peabody, 2005). Although the agent acts without

[13] In her 2005 paper Peabody remarks that: "Philosophers writing on action have not concerned themselves much with slips" (173). There were some exceptions to the rule when she wrote this, like Anscombe 2000; Eilan & Roessler 2003; and Peabody 2005 herself. More philosophers have written

awareness of what she is doing, she still exercises know-how. The agent who slips and grabs a pen instead of a spoon to stir her coffee is fully competent and succeeds in stirring the coffee with her pen; she in no way struggles with it – she correctly judges the distances involved, and the application of force. The agent who inadvertently says, "spank you!" is not producing gibberish but rather a like-sounding English word to the intended one. The agent who pushes the wrong elevator button successfully pushes a nearby button; she does not try to push the wall instead, nor does she, with the intention of pushing a button, play at leapfrog instead. Note that know-how need not be full-blown. Some things we do, we do automatically or semi-automatically. In the case of a slip however, the agent does not make the mistake because she has a false belief or lack proper knowledge. She has the knowledge she needs to pull off the intended action, and most of the time when she intends to Φ, she Φ-s, yet at time *t* she slips and Ψ-s nonetheless. However, the mistake in action is not wide of the mark concerning the intention in question; as Hofstadter and Moser (1998) write:

> most errors are not simply random intrusions of 'noise' into an otherwise clear and unambiguous flow of communication; they are almost always intimately connected with the speakers intended message, and reveal something of it.

Admittedly, cases exist where, in some substantive sense, what the agent does *is* far removed from her original plan: consider the agent who slips and drinks poison thinking it is water; surely, she did not mean to do *that*. At the same time, what she does has much in common with what she planned to do: drinking a glass of water-like liquid. It is not as though she throws the glass out the window or pours its contents over her head. Despite her mistake, she does not struggle to pull off any of her body movements; indeed, she displays her knowledge how of water-drinking in a way that closely resembles the success case. That aspect of resemblance is key to my argument against intellectualism.

on slips recently, Santiago Amaya, in particular (2013; 2014; 2015). See also Felix & Stephens 2020, Stephens and Felix 2020, Mele 2006 and Gjelsvik 2017. There is a rich literature on slips in psychology dating back to Meringer 1908. Some prominent scholars are Baars 1992; Freud 1966; Fromkin 1980; Norman 1981 and Reason 2007.

Consider Stanley's claim (2013: 190) that

> knowing how to do something amounts to knowing a truth. This explains both the human capacity for skilled action, as well as the fact that when we act with skill, we know what we are doing without observation.[14]

Stanley connects knowledge of one's own actions with the observation that skills are always informed by facts.

I believe that the existence of slips poses problems for multiple elements of an intellectualist account. First, slips run counter to the claim for a close connection between the propositional nature of skilled action and the way an agent comes to know what she is doing without observation. In the case of the pen and the coffee cup, the agent does not know what she is doing *as she does it*. If asked, "why did you put your pen in the coffee cup?" she would be surprised and answer something like, "Oh! I didn't know." She lacks non-observational knowledge of what she is doing yet acts with know-how. It is just that *per* the intellectualist theory, she ought to have known better, precisely because she manifests a proposition in a practical mode of presentation in her action.

Imagine asking the agent to repeat her performance deliberately: she performs the same movements; they reveal the same skills as before – with a tiny but crucial difference. Both times she performs a skill that is part of her action repertoire, but this time her act is intentional. This time, her coffee-stirring skill is applied deliberately; she knows what she is doing without any need to observe herself: she does exactly what she thinks she does. Knowledge how cannot be tied to non-observational knowledge in the way Stanley wants it to be because only on the repeated performance can one speak of the agent having non-observational knowledge of her actions.

Could Stanley reply that acting with skill is necessary but not sufficient for non-observational knowledge of what one is doing? Could he claim that one must also *intend* what one does? I do not think that such a reply can work. People do multiple things with the aid of their practical competencies without intending them first, *especially* the things Stanley writes about, like swimming and boxing. The

[14] Stanley mentions non-observational knowledge of action at the very last page of his book. Like practical modes of presentation this too is a highly controversial notion, and it is therefore surprising that he does not say more about it. Anscombe 2000 introduced the notion in *Intention*. Sarah K. Paul (2009: 1) calls the idea that we can have non-observational knowledge of our own actions "a provocative claim". I will not go into the debate here though, my discussion simply includes the fact that Stanley thinks his intellectualist account of knowledge how can explain non-observational knowledge of one's own actions (2011: 190).

expert swimmer and boxer can swim and box without any need to intend their actions: these are basic activities that they are able to do "just like that". As Löwenstein (2017: 77) writes: "not every exercise of know-how is an intentional action since there are entirely automatic and therefore non-intentional performances which nevertheless qualify as genuine exercises of know-how". He suggests unwelcome sign reading as an example of non-intentional action that nonetheless reveal knowledge how; while passing a sign with an advertisement you automatically read what it says. Maybe you did not want to read it because you think advertisements remove your attention from more important stuff, yet you exercise your knowledge how and read the advertisement automatically and correctly.

The above is not my main concern though. The bigger problem is the way the intellectualist is forced to conceptualize slips given that they clearly involve both knowledge how and skill. It is a trivial observation that, for multiple reasons, people often end up doing something different from what they have planned. Slips are different though from other unplanned doings – precisely because they involve no change of mind, self-deception, false belief, Freudian hidden belief, etc. The agent who slips has both the practical competence and the knowledge she needs to perform her intention – yet she does something bluntly contrary to it.

A worry might have popped up at this stage. An opponent to my view could complain that the argument from slips has no real effect against the intellectualist if her preferred explanation of them is that they are so called double capture errors: Imagine that you are driving your familiar route home from work intending to take an unfamiliar turn, say to inspect a new gym in your area. It is normal in cases like this that you forget about your plan and drive straight to your home. According to this view a slip is a kind of memory lapse or forgetfulness and the intellectualist can easily account for it. Sometimes people forget things that they know. There is nothing mysterious about that. Slips however, are different from cases of forgetfulness. According to Amaya these cases are not really slips at all: "There is no slip, for instance, when the agent has the intention, but simply misses the chance of acting on it." (2013: 564). Thus, these cases are not really slips, but slip- "look-alikes," apparently similar to slips, but not genuine slips (Amaya 2013: 559). Rather than interpreting forgetfulness cases as slips, they should be seen as failures of prospective memory.

Slips are without exception based on knowledge how: they necessarily involve a practical way of "knowing a truth"; it is only that they do not involve the truth that the agent believes she is at the time acting on.

The intellectualist could argue that actions are never informed by only one single proposition, but a cluster or set of propositions. This would allow the intellectualist to explain slips by stating that the agent fails to relate properly to a

couple of the propositions in this set, but is correctly guided by others, thus explaining the slip, and the action performed. For example, a man slips and picks up his pen instead of his spoon, and proceeds to stir his coffee with it. The intellectualist could then argue that he succeeds in making a stirring motion with his hand, he succeeds in grasping something, pinching it in a spoon-like fashion, and so forth. Thus, he does exercise a proper practical mode of presentation of several propositions.

This reply does not work, though, because the agent exhibits knowledge how of *the exact thing* that he does. In the spoon example, the agent knows what a spoon is like, he has the practical competence to grab a spoon and use it to stir his coffee in perfect accordance with his intention to do so. Moreover, a pen is not spoon-like when it comes to sensitive fingertips. It is round. It is differently balanced. The agent who slips and takes the pen, not the spoon, adjusts his grip to the round shape of the pen, and adjusts to its balance. A robot programmed to pick up a spoon would struggle if it was given a pen. The human agent, on the other hand, does not struggle, because he acts with knowledge how and skill without knowing that he does. He adapts unconsciously.

Put another way, to say that the agent succeeds in stirring with something spoon like (or something similar) introduces an element of vagueness into the propositions that the agent is meant to manifest, a vagueness that is not reflected in the agent's actual motor competence.

Moreover, the suggestion that the agent fails to act properly on some of the propositions in the cluster of propositions he is at present acting on, does not explain the "slip-propositions" *per se*, rather it explains them away like glitches in a machinery. If there are glitches in a machinery, it is not a satisfactory solution that the system works after all because most of the machinery is well functioning. One wants to understand the nature of the glitch.[15]

The challenge slips pose to the intellectualist is this: On the intellectualist view, when an agent slips, there must exist some substantive sense in which she is split between two levels of propositional knowledge: the subconscious propositional knowledge that guides her immediate behaviour, and the conscious (and false) propositional beliefs that follow from the knowledge intended to guide her behaviour. Again, the movements she performs non-intentionally require knowledge how and skill. For the intellectualist, these movements must originate from a mistake in regard

[15] See also Löwenstein's argument that it is a necessary condition for know-how that it is *possible* to intentionally engage in the activity (2017, 183). Ref., the spoon-slip (the agent does not intend the act under the exact description it counts as a slip. To slip is precisely to act against one's governing intention, and if your theoretical strategy to explain slips is to make them intentional under another description, then you do not account for slips *per se*, rather you explain them away).

to a practical truth: i.e., a truth she has grasped in a practical way. Prior to the movements that comprise her slip, she must have responded to a different truth than the one to which she intended to respond to, without her being aware. In other words, the intellectualist must hold that, when an agent slips, she is wrong about the proposition(s) guiding her behaviour. There is a mismatch between what she takes herself to be doing, given her intention and what she is actually doing, and so a divide between the knowledge how she thinks is guiding her behaviour and the knowledge how that is actually guiding it. This mismatch – between the (presumed to be propositional) knowledge the agent intends to manifest and the knowledge she actually manifests – is unique to knowledge how, finding no equivalent within knowledge that.

In a slip the agent unconsciously acts on a different proposition than the one she intends to. It is not possible to slip in the same way in relation to knowledge that. What would such a slip look like? Consider the following; Agent A intends to bring to her mind the proposition "Circles are round," but slips and thinks "Squares are square" instead, still believing herself to be thinking "Circles are round" – for, remember, a slip is an unconscious mistake made between two known propositions. The example makes no sense. A cannot believe herself to be thinking "Circles are round" while really thinking "Squares are square". If A brings to her mind the proposition "Circles are round" this is what she does. No slip can happen, because the agent would be aware of it. The proposition being in the forefront of her mind. If A *unconsciously* thinks "Squares are square," she does so – unconsciously. The two levels do not interact in the same way as they do in knowledge how. Note that the problem here does not relate to content externalism. The problem is not with the nature of the propositions, but with how the agent *relates* to propositions.

In the case of theoretical thinking, the agent can – of course – take herself to believe something without actually believing it, or only believing it in a very weak way. One example would be self-deception, another implicit bias; a third would be manifestations of the Freudian unconscious. What all these cases have in common is that the agent is wrong about a few or more of her own mental characteristics: she holds false beliefs about herself and her psychological makeup. By contrast, slips express nothing about underlying belief or desire.

To recap, the analogous case to a slip, in the theoretical domain, would be an agent who, thinking herself to be thinking about one proposition, is really thinking about another proposition, without being aware of it – not in the sense of active self-deception, but rather that of making a blunt mistake regarding what thought she is thinking.

Everyday slips are ubiquitous, for all one's practical competence to perform correctly. It makes sense that one sometimes wonders: "am I really doing what I take myself to be doing?" But can we make sense of the thought: "am I really thinking what I take myself to be thinking?" No. The capacity to get things wrong, in a skilful way, is a *sui generis* feature of knowledge how – setting it apart from knowledge that. Inasmuch as one tries to keep to Stanley's framework and accept knowledge how as a kind of relation to a proposition, that relation is not reducible to the relation informing knowledge that. Both are relations to propositions, but they are not alike. The existence of slips shows that knowledge *how* and *knowledge that* do not have the same epistemic properties, and so neither one can reduce to the other.

To recap, Stanley explains knowledge how in a way that makes it reducible to knowledge that; knowing how to do something amounts to knowing a propositional truth about the world, in a practical way. In technical terms:

> [1] Knowing how to Φ is knowing some means *w*, such that *w* is the way to Φ.

When Stanley's agent acts with knowledge how, she does so by entertaining a proposition in a practical way. I have emphasized that slips involve behaviour based on knowledge how. In Stanley's terms it will perhaps look something like this:

> [2] A slip involves thinking in a practical way of some means *w** as a way of Φ-ing while knowing that *w** is not a way of Φ-ing.

On a reductive intellectualist account, when one slips, one is guided by the practical grasp of a proposition that is not in line with one's knowledge or intentions. One sets out to perform one action based on knowledge how but ends up performing another: in blunt terms, one manifests one's practical grasp of one proposition while believing oneself to be manifesting one's practical grasp of another. One is guided by the proposition:

> [3] *w** is a way of Φ-ing,

even as one thinks the guiding proposition to be:

> [4] w is a way of Φ-ing.

How can this be? How can one unknowingly manifest a different proposition of theoretical knowledge from the one that one thinks oneself to be manifesting?

I have come to a different conclusion than the intellectualist. Slips, I hold, reveal knowledge how to be of a different nature than knowledge that. An agent simply cannot slip when it comes to knowledge that – only knowledge how.

It does not follow from my view that I must deny that what an agent thinks can add a dimension of truth to what she is aware of: it can. Nor am I suggesting that an agent's judgments about her inner states – unlike her judgments about the world – are error proof. I make no claim to full-blown mental transparency. Neither am I denying the possibility of false beliefs. Suppose I think my flight leaves tomorrow; but I am wrong. I am unaware that my flight has been moved to the day after tomorrow. Obviously, like in this case, one can be wrong about a proposition one entertains or what it refers to. Such a possibility is unproblematic for my view.

The insight I want to drive home is that one cannot be wrong about *which* proposition one believes oneself to be entertaining. Even though one might have a faulty grasp of the content of one´s own thoughts, one thinks the thought one thinks. Someone could object that the insight is trivial, and maybe it is. At the same time, if something that is trivially true of knowledge that does not transfer to knowledge how, it is not so trivial anymore – at least, if one wants to reduce all knowledge how to knowledge that.

The intellectualist could point out that there exist a set of established philosophical cases where the subject is wrong about the proposition she believes herself to be entertaining, namely the type of arguments mustered in defence of content externalism. Consider a person that unbeknownst to herself switches places with her twin on Twin-Earth. Waking up in her twin-cabin, she walks out to her twin-front porch, watches the morning sun glittering on the twin-lake, and thinks: "Ah, beautiful water!" It is not, however, water in the sense she thinks; the twin-lake being composed of XYZ and not $H_2O$ (Putnam 1973).

The point is that the meaning of her proposition is dependent on external factors (physical properties of the world, and socio-linguistic norms present in that world), and thus it is possible to think that you think *p*, while in reality you are thinking *q* in a manner that seems similar to that of a slip; thus, aligning knowledge that with knowledge how.

The above type of argument is, however, not equal to that of a slip. In a slip an agent does something other than what she intends to do, and, true enough, in arguments like the one above, the agent does *de facto* mean something other than what she intends to mean, yet the latter is through no *mistake* of her own, but hinges on the external factors that help individuate the propositional content she entertains. The idea that drives content externalism is that our ideas and concepts are not contained inside our heads but are dependent on exterior factors. Put

differently, in a Twin-Earth-style argument, the sentence picks out something different than what the agent thinks that the sentence picks out. It is, however, never a question of whether she thinks "What beautiful water!", or not, but of what "water" means.

A slip is different. In a slip, there are two propositions operative simultaneously: one that the agent intends to act on, and believes herself to be acting on, and one that she is *actually* acting on. This twofold structure is *essential* to what goes on in a slip, as two propositions are active at the same time, though in different ways.

It is this state of affairs that does not translate into a coherent knowledge that-scenario. It is not present in the agent thinking "Ah, beautiful water!" thinking she is thinking about $H_2O$, but really thinking about XYZ – *that* agent simply has a false belief. An equivalent scenario to the slip would be if the Twin-Earth traveller was standing on her porch, looking at the lake, and thinking that she was thinking "What beautiful water!" while not really thinking it, but *actually* thinking "Ah, *brown* water!", she just did not know the she was thinking the latter. To recap, one cannot be wrong about which proposition one is holding, though one can, of course, be wrong about the full meaning of this proposition.

The intellectualist might still try to object that one *can* be wrong about what proposition one entertains and claim that this is exactly what happens in the case of slips: the agent's act is guided by proposition *p* while she thinks about proposition *q*, but fails to entertain *q* in a "practical mode". The proposed "solution" comes with a hefty price though. The notion of "practical mode" must do a great deal of explanatory work, even as it is unclear what exactly it amounts to. The risk is that a "practical mode" / "theoretical mode" distinction merely takes the place of the knowledge how/knowledge that distinction. Worse, the "solution" implies that what one might call *local transparency* – the inability to be wrong about what one takes oneself to be doing, when what one is doing is entertaining a certain proposition – does not hold for propositions entertained in the "practical mode"; but that would undermine a rationale for the reductive account, which is meant to explain non-observational knowledge of skilful actions. If the intellectualist's reply is that the principle holds in general – i.e., for full-blown intentional actions – but not for slips, then the "solution" seems *ad hoc*. Given the argument from slips, at least something in the intellectualist account must go.

## Objections

### There is no such thing as a genuine slip

One option for the intellectualist would be to deny the existence of slips altogether. This, however, would go against a long tradition in linguistics, in psychology, and in cognitive science, dating back at least to Meringer's 1908 report on his collection

of verbal slips, possibly to Freud (1966 [1901]). In more recent times, one should not forget Lashley's ground-breaking 1951 paper "The problem of serial order in behaviour". The list of researchers working in this area – all of whom accept the existence of slips as real – has grown so long that doing it justice would take far more space than I have available.

**Slips do not imply knowledge how and skill**

Alternately, the intellectualist could deny that slips imply knowledge how and skill. Such a move would erase the problematic propositional-knowledge split by making the motions comprising the slip unguided by propositional knowledge. The unfortunate consequence is that motions that seemingly *do* involve knowledge how and skill – like a verbal slip, where one word is substituted for a like-sounding word – must be seen as not representing knowledge how and skill; but this runs contrary to the fact that verbal slips are not mere gibberish.

**Slips imply knowledge how and skill, but it is misdirected**

The intellectualist could also deny that the agent who slips acts with knowledge how in the following sense: she intends to Φ but Ψ-s instead, while thinking she is Φ-ing: the appropriate skill is present but misdirected. The agent who slips and stirs her coffee with her pen uses her customary coffee-stirring skill but applies it to a pen rather than the more conventional spoon. The intellectualist can thus argue that there is no propositional-knowledge split in the cases of slips. The agent simply applies the *correct* propositional knowledge to the wrong object.

However, like in my counterargument against the argument appealing to clusters of propositions, this argument fails to take into account the intricacies of fine motor skills. The argument from misdirection can explain certain forms of slips, like, for example, pushing the wrong button in an elevator. It cannot however explain stirring your coffee with a pen instead of a spoon, for a pen and a spoon, when it comes to fine motor skills, are too different. What if, for example, an agent went for her spoon instead of her pen when intending to write something? If she misdirected her penmanship, the spoon would simply slip out of her grip as she lifted it, seeing as a spoon is thinner than a pen. Consequently, though the argument from misdirection can explain some instances, it is not a generalizable solution.

**Conclusion**

As expressions of knowledge how, slips lack any equivalent within knowledge that. Knowledge how is hence essentially different from knowledge that, and the one is not reducible to the other. I take it as an advantage of my argument that it

relies on ordinary real-life cases, compared to the highly contrived Gettier cases so often used in this debate. Gettier cases are the consequences of sheer epistemic luck: the hapless agent in a Gettier case lacks "genuine" knowledge. By contrast, the agent who slips does so not on freak chance but on knowledge how – just not the knowledge how she meant to apply.

One could object that I have not shown knowledge how to be non-propositional. Perhaps this is so. What I have at least shown though is that knowledge how is not reducible to knowledge that, even if both are propositional. This strikes at the core of reductive intellectualism by undermining one of its key motivations: namely, the attempt to deliver a unified theory of knowledge. The appearance of slips with knowledge how but not with knowledge that clearly shows that certain core epistemic properties of the one are not core epistemic properties of the other. Slips drive a wedge between knowledge how and knowledge that.

## REFERENCES

Amaya, Santiago. 2013. "Slips" in *Nôus*, 47 (3): 559-576.

Amaya, Santiago & Doris, John M. 2014. "No Excuses: Performance Mistakes in Morality" in *Handbook in Neuroethics* by Jens Clausen and Neil Levy (eds.).

Amaya, Santiago. 2015. "The argument from slips" in Andrei Buckareff, Carlos Moya & Sergi Rosell (eds.), *Agency, Freedom, and Moral Responsibility*. pp. 13-29.

Anscombe, G. E. M. 2000. *Intention*. Harvard University Press: Harvard.

Baars, Bernard J. 1992. "The many uses of error: Twelve steps to a unified framework" in *Experimental Slips and Human Error: Exploring the Architecture of Volition* Baars, B.J. (ed.). Plenum Press: New York.

Bengson, John, Moffett, Marc A. 2011. "Non-Propositional Intellectualism" in *Knowing How: Essays on Knowledge, Mind and Action* by J. Bengson and M. Moffett (eds.). Oxford University Press: Oxford.

Bengson, John, Moffett, Marc A. and Wright, Jennifer C. 2009. "The Folk on Know How" in *Philosophical Studies* 142 (3): 387-401.

Brogaard, Berit. 2009. "What Mary Did Yesterday: reflections on Knowledge-wh" in *Philosophy and Phenomenological Research* 78: 439–67.

Brogaard, Berit. 2011. "Knowledge-How: A Unified Account" in *Knowing How: Essays on Knowledge, Mind and Action* by Bengsson and Moffet (eds.). Oxford University Press: Oxford.

Carter, J. Adam and Pritchard, Duncan. 2013. "Knowledge-How and Epistemic Luck" in *Nôus*, 47 (4): 1-18.

Cath, Yuri. 2019. "Knowing How" in *Analysis Reviews* 79: 487-503.

Cath, Yuri. 2011. “Knowing How without Knowing That” in *Knowing How: Essays on Knowledge, Mind and Action* by J. Bengson and M. Moffett (eds.). Oxford University Press: Oxford.

Devitt, Michael. 2011. “Methodology and the Nature of Knowledge-How” in *Journal of Philosophy*, 108 (4): 205-218.

Davidson, Donald. 2001. *Essays on Actions and Events*. (2nd ed.). Oxford University Press: Oxford.

Eilan, Naomi & Roessler, Johannes. 2003. Agency and Self-Awareness: Mechanisms and Epistemology in Agency and Self-Awareness by Roessler & Eilan (eds.). Clarendon Press: Oxford.

Felix, Cathrine; Stephens, Andreas. 2020. "A Naturalistic Perspective on Knowledge How: Grasping Truths in a Practical Way" *Philosophies* 5, no. 1: 5.

Freud, Sigmund. 1966 [1901]. *The Psychopathology of Everyday Life*. Ernest Benn: London.

Fromkin, Victoria. (ed.) 1980. *Errors in linguistic performance: Slips of the tongue, ear, pen, and hand*. San Francisco: Academic Press,

Gjelsvik, Olav. 2017. “Anscombe and Davidson on Practical Knowledge: A Reply to Hunter” in *Journal for the History of Analytical Philosophy*, 5(6): 1-11.

Glick, Ephraim. 2015. “Practical Modes of Presentation” in *Noûs*, 538-559.

Hetherington, Stephen. “Knowledgeable Inquiry” in *Action in Context* by Anton Leist (ed.). de Gruyter: Berlin.

Hofstadter, Douglas .R. & Moser, David. 1998. “To err is human; to study error-making is cognitive science”. Gurba, K. and Zarnecka-Bialy, E. (eds.), Philosophy & Error. Jagiellonian University Press: Krakow.

Koethe, John. 2002. “Stanley and Williamson on knowing how” in *Journal of Philosophy,* 99: 325–328.

Lashly, Karl. 1951. “The problem of serial order in behaviour” in L.A. Jeffres (ed.) *Cerebral mechanisms in behavior*. Wiley: New York.

Löwenstein, David. 2017. *Know-how as Competence: A Rylean Responsibilist Account* Vittorio Klosterman: Frankfurt am Main.

Hilary, Putnam. 1973. “Meaning and Reference” in: *Journal of Philosophy* 70: 699–711.

Meringer, Rudolf. 1908. *Aus den Leben der sprache*. B. Behr: Berlin.

Mele, Alfred R. 2006. “Practical Mistakes and Intentional Actions” in *American Philosophical Quarterly*, Vol. 43(3): 249-260.

Norman, Donald. A. “Categorization of Action Slips,” *Psychological Review*. 88, No. 1. (Jan., 1981): 1-15.

Noë, Alva. 2005. “Against Intellectualism” in *Analysis* 65: 278–290.

Paul, Sarah K. 2009. “How We Know What We’re Doing” in Philosopher’s Imprint, 9 (11): 1-24.

Pavese, Carlotta. 2015. “Practical senses” in *Philosophers’ Imprint* 15: 1–25.

Peabody, Kay (pseudonym for Paprzycka, Katarzyna) 2005. “Trying Slips: Can Davidson and Hornsby Account for Mistakes and Slips?” in *Philosophia*, 33 (1-4): 173-216.

Poston, Ted. 2009. “Know How to be Gettiered?” in *Philosophy and Phenomenological Research*, 79 (3): 743-747.

Reason, James. 1990. *Human Error*. Cambridge University Press: Cambridge.
Rosefeldt, Tobias. 2004. “Is Knowing-how Simply a Case of Knowing-that?” in *Philosophical Investigations*, 27: 370–379.
Ryle, Gilbert. 2000 [1949]. *The Concept of Mind*. Chicago Press: Chicago.
Schiffer, Stephen. 2002. “Amazing knowledge” in *Journal of Philosophy* 99: 200–202.
Stalnaker, Robert. 2012. “Intellectualism and the objects of knowledge” in *Philosophy and Phenomenological Research* 85 (3): 754–61.
Stanley, Jason. 2013. *Know How*. Oxford University Press: Oxford.
Stanley, Jason. 2011. “Knowing (How)” in *Nôus* 45 (2): 207-238.
Stanley, Jason and Williamson, Timothy. 2001. “Knowing-How” in *The Journal of Philosophy* 98 (8): 411-444.
Stephens, Andreas; Felix, Cathrine V. 2020. "A Cognitive Perspective on Knowledge How: Why Intellectualism Is Neuro-Psychologically Implausible" *Philosophies* 5, no. 3: 21.