

Problems with intellectualism

Ellen Fridland

© Springer Science+Business Media B.V. 2012

Abstract In his most recent book, *Know How*, Stanley [Know how, Oxford University Press: Oxford, (2011b)] defends an Intellectualist account of knowledge how. In this paper, I will focus specifically on one claim that Stanley forwards in chapter one: I will focus on Stanley's claim that automatic mechanisms can be used by the Intellectualist in order to terminate Ryle's regress. I will argue that the proposed solution to the regress, regardless of how propositions are individuated, cannot provide an adequate Intellectualist account of skillful action. I should note that the solution to Ryle's regress is central to the Intellectualist agenda. If Stanley fails to stop the regress or stops the regress by appealing to nonpropositional knowledge, then his Intellectualist project fails.

Keywords Knowledge how · Intellectualism · Anti-intellectualism · Intelligent action · Jason Stanley · Gilbert Ryle

1 Introduction

For the last 10 years, Jason Stanley has been promoting Intellectualism about knowing how. In a seminal 2001 paper co-authored with Timothy Williamson, Stanley argues that knowing how, or intelligent, skillful action is best construed as propositional in nature. Stanley claims that his account, an account that is rooted in semantic considerations, proves that the knowledge involved in a skillful action is not, *pace* Gilbert Ryle (1946, 1949), a distinct kind of knowledge, but rather, just garden-variety propositional knowledge. According to Intellectualism, skill or knowledge how are handled just like ordinary cases of knowledge that, knowledge

E. Fridland (✉)
Berlin School of Mind and Brain, Humboldt University of Berlin,
Luisenstr. 56, Haus 1, 10099 Berlin, Germany
e-mail: ellenfridland@gmail.com

where, knowledge when, and knowledge why. On this account, when we say, for example, that Hannah knows how to ride a bike, what we mean is that Hannah really knows the answer to the question, “what is the way for you to ride a bike?” That is, in a particular context c , we can say that Hannah knows how to ride a bicycle “if and only if there is some contextually relevant way w such that Hannah stands in the knowledge relation to the Russellian proposition that w is a way for Hannah to ride a bicycle and Hannah represents w under a practical mode of presentation.”¹ In short, S knows that w is the way to ϕ and S considers w under a practical mode of presentation.

In his most recent book, Stanley (2011b) defends his Intellectualist account of knowledge how. In *Know How*, Stanley produces the details of a propositionalist theory of intelligent action and also responds to several objections that have been forwarded to this account in the last decade. In this paper, I will focus specifically on one claim that Stanley makes in chapter one of his book: I will focus on Stanley’s claim that automatic mechanisms can be used by the Intellectualist in order to terminate Ryle’s regress. I will argue that this proposed solution to the regress, regardless of how propositions are individuated, cannot provide an adequate Intellectualist account of skillful action. I should note that the solution to Ryle’s regress is central to the Intellectualist agenda. If Stanley fails to stop the regress or stops the regress by appealing to nonpropositional knowledge, then his Intellectualist project fails.

In this paper, I will proceed as follows: in Sect. 1, I review Ryle’s regress and present Stanley’s newest “symmetry” response to it. In Sect. 2, I go on to argue that positing automatic mechanisms does not provide the Intellectualist with an adequate account of propositional knowledge. I do this (a) by developing the Intellectualist account under a general or coarse-grained individuation of ways and (b), by developing the account under a narrow or fine-grained individuation of ways. I show that either option, taken to its logical conclusion, requires nonpropositional knowledge.

2 A regress and a response

In *The Concept of Mind*, Gilbert Ryle argues that there is a fundamental distinction between knowing how and knowing that. The distinction between these two kinds of knowledge is meant to be the distinction between intelligent action or skill on the one hand and propositional knowledge on the other. Before going into Ryle’s arguments for this distinction, we ought to be careful to distinguish intelligent action, skill, and knowledge how from what I have elsewhere called “knowledge-about-how” (Fridland forthcoming). “Knowledge-about-how”² is a clearly propositional form of knowledge which takes as its content the way in which to perform a skill or action. Knowledge how is knowledge in action, while knowledge-about-how is knowledge about action. For instance, I may know how to throw a baseball

¹ Stanley and Williamson (2001, p. 430).

² See Snowdon (2003) for a similar distinction.

(I may, under normal counterfactual conditions,³ succeed in throwing a baseball) or I may know-about-how to throw a baseball (I may have read about how to throw a baseball online and thus acquired knowledge about the process of throwing baseballs). For Stanley, the difference between knowledge how and knowledge-about-how would come down to the mode under which each propositional state is represented. In the first case of knowing how, the knowledge would be represented under a practical mode of presentation, whereas in the latter knowledge-about-how case, it would be represented in a different mode (either the first or third-person mode of presentation, depending on the content).⁴ Crucially, it is only knowledge how or skillful action that creates problems for the Intellectualist.

Famously, in order to cement the distinction between skill and propositional knowledge, Ryle argues that it is impossible that knowing how to do something is reducible to knowledge of a proposition about how to do it. This is because if knowing how were cashed out in terms of propositional knowledge an infinite regress would ensue.⁵ If knowing how to do something was grounded in knowing that something is the case then one would be required to think of the rule governing how to do something before doing it, but in order to know how and when to think about the rule properly, one would also be required to think of another rule about how to apply the first rule, and so on *ad infinitum*. Ryle writes,

The consideration of propositions is itself an operation the execution of which can be more or less intelligent, less or more stupid. But if, for any operation to be intelligently executed, a prior theoretical operation had first to be performed and performed intelligently, it would be a logical impossibility for anyone ever to break into the circle (1949, p. 30).

Stanley responds to Ryle's regress argument by pointing out that (1) there is no independent reason to hold that propositional knowledge must be accompanied by a prior act of conscious contemplation, and in the absence of such a requirement, it follows that (2) there is a deep symmetry between knowledge how and knowledge that. This means that if one can stop the regress for knowledge how, then one can use the same strategy in order to stop the regress for propositional knowledge. As such, if knowing how does not start the regress then knowing that need not start it either. Of course, the opposite is true as well: if knowing how does start the regress, then propositional knowledge will start it, too.

Stanley asserts that,

Ryle needs an argument that an action is only guided by (or is a manifestation of) my propositional knowledge that p if it is preceded by a distinct intelligent act of contemplating the proposition that p . (2011b, p. 24).

³ See Hawley (2003) for an account of knowing how as ability under normal counterfactual conditions.

⁴ See Stanley (2011a, p. 212) for more on how one can know a proposition about how to ϕ , without necessarily representing that proposition under a practical mode of presentation.

⁵ Stanley and Williamson (2001) seem to think that the regress is the only real argument against Intellectualism that Ryle presents but this isn't exactly right. While Ryle did take the regress to be decisive, there are several other considerations that he forwards against the intellectualist legend. See Fridland (2010) for detailed objection that she calls "the problem of specificity."

But it seems that Ryle neither has such an argument nor could he or anyone else fashion a plausible argument to this end. The fact is that the requirement for prior contemplation seems to be more prejudice than sober philosophical reflection. Especially with ever expanding evidence of nonconscious mental states coming out of the cognitive sciences, there just doesn't seem to be a good reason to assume that any genuine state of knowledge requires some prior conscious state of consideration. However, if this is the case then the Intellectualist need not commit herself to the implausible theory that Ryle assumes she must. The fact is,

the reasonable Intellectualist about intelligent action will hold that an action is intelligent in virtue of being guided by propositional knowledge, but deny that this entails that intelligent action requires a prior act of self-avowing the propositional knowledge that guides one's actions (Stanley 2011b, p. 14).

As such, we are left admitting that Ryle's requirement for some prior act of contemplation or deliberation, on any reasonable Intellectualist story, will turn out not to be a requirement for explicit contemplation, but rather, only a requirement for some state to guide action. And all we need for the propositional guidance of action is a mechanism to play the functional role of selecting, triggering or applying the appropriate proposition. Importantly, Stanley argues that such a mechanism will be required for any standing epistemic state whether it be a state of knowing how or knowing that.

So, if knowledge that need not be considered or contemplated in order for it to be manifest, then there is no obvious distinction between knowing how and knowing that insofar as the regress is concerned. It seems that in order to apply knowledge of any kind, one need not invoke some independent, intellectual state of explicit, conscious reflection. One only requires some brute mechanism by which to trigger the state. But if this is so, then there is no reason to think that propositional knowledge in action causes any particular threat of regress.

The crucial point is that once prior conscious contemplation is detached from propositional knowledge, then there is no inherent asymmetry between applying, selecting, or triggering a state of knowing that in order for it to be manifest in thought and applying, selecting or triggering a state of knowing how in order for it to guide action.⁶ Both will require some mechanisms to do the job and if one can find a mechanism for knowing how, then one can use the same mechanism for knowing that. Stanley writes,

[I]f manifesting one's propositional knowledge that one can open the door by turning requires a prior triggering of a representation of the doorknob, why doesn't manifesting one's knowledge of how to open the door require a prior triggering of a representation of the doorknob? That is, if knowing that

⁶ As Stanley writes, "suppose that knowledge how is a complex of dispositions. There still need to be automatic mechanisms that mediate between dispositions (and abilities) and the manifestation or execution of these dispositions and abilities. The mechanisms that mediate between dispositions and the manifestation or execution of these dispositions cannot themselves be more dispositions and abilities" (2011b, p. 26).

requires prior triggering of representations', why doesn't knowing how require 'prior triggering of representations'?

...Either manifestation of both propositional knowledge and knowing how require a prior mental act, or manifestations of neither propositional nor knowing how requires a prior mental act. (2011b, p. 27, 17).

It turns out that what goes for knowing how, will go for knowing that, all things being equal. If there is no threat of regress for one, then there is no threat of regress for the other. At this point, let us grant the symmetry. Let us grant that for any standing epistemic state,⁷ one needs some mechanism with which to apply that state and any independent mechanism will either start a regress for both propositional knowledge and skill or for neither.

To take stock, we should notice that Stanley's argument against the necessity of a prior act of deliberate reflection is not an argument against the necessity of some means by which to apply standing epistemic states into action. That is, Stanley's argument does not entail that the functional role for selecting epistemic states for manifestation in behavior does not need to be filled, it only entails that it need not be filled by some intentional, intelligent, contemplative decision or deliberation. However, this leaves us in need of some mechanism that will do the job of applying or triggering the appropriate knowledge. That mechanism, Stanley suggests, can be a general, unintelligent, subpersonal, automatic, triggering or selecting process: a widget!⁸

Before arguing that Stanley's appeal to automatic mechanisms fails to provide an account of intelligence that is thoroughly propositional in nature, I'd like to point out that, at this stage, Stanley is not denying that the manifestation of propositional knowledge is not propositional all the way down. If he were to do deny this then no automatic mechanisms of application would be required. Rather, Stanley admits that some nonpropositional mechanism is required in order to apply knowledge in action, what he denies is that such a mechanism is intelligent and thus, an instance nonpropositional knowledge. Stanley insists that the mechanisms that serve this function are nonpropositional, automatic and dumb. As such, the disagreement between the Intellectualist and the Anti-intellectualist at this stage in the dialectic is about whether the selection or triggering mechanisms that apply knowledge in action are intelligent or not. Stanley says they are not⁹; I will argue below that they

⁷ Of course, at this point we may question whether perhaps the difference between a propositional state and an instance of knowing how is that only the former but not the latter, is properly construed as a standing epistemic state. Or, more poignantly, the lesson that we should take away from this discussion is that standing epistemic states will need some kind of independent application mechanism and the necessity of such an independent mechanism is where the threat of the regress begins. As such, perhaps we need to construe knowledge how as intelligent processes, but not standing epistemic states. We will need to incorporate the mechanism of application or triggering into this kind of state rather than allow it to require an independent process of selection. This it seems is the most viable option for the anti-intellectualist to pursue. We can think of something like Millikan's (1996) pushmi pullyu representations here.

⁸ Thanks to Andy Egan for this phrase.

⁹ "Triggering representations can be done poorly or well. But this does not show it can be done intelligently or stupidly... Since triggering representations is something we do automatically, replacing "contemplating a proposition" by "triggering a representation" in Premise 2 of the regress argument results in a manifest implausibility" (Stanley 2011b, p. 26).

must be. However, we must notice that everyone including the Intellectualist agrees that the mechanism is not propositional.

My goal in the next section will be to show that the selection mechanisms that Stanley appeals to are not dumb or automatic in the relevant sense. Rather, whatever plays the functional role of selecting or triggering the guiding proposition of skilled action, will be nonpropositional but intelligent. Once we accept Stanley's argument for the symmetry of propositional knowledge and skill, this entails that both the manifestation of propositional knowledge and knowledge how require intelligent, nonpropositional mechanisms for their manifestation in action. Ironically, then, whereas Ryle only argued that nonpropositional knowledge is required in order to give an account of knowledge how, Stanley, if right about the symmetry between knowing how and knowing that, but wrong about the possibility that automatic mechanisms can do the job of implementing knowledge in action, will have successfully argued that nonpropositional knowledge is required in order to account for the manifestation of both skill and propositional knowledge.

3 Automatic mechanisms and Intellectualism

After successfully arguing that prior deliberation is a baseless demand to put on the manifestation of propositional knowledge in action, Stanley (2011b) goes on to defend the idea that automatic mechanisms can do the job of selecting or triggering epistemic states for action. These “mechanisms are presumably *general* mechanisms for mediating between epistemic states and action” (emphasis in original, p. 40) Following Fodor (1983), Stanley claims that,

[T]riggering representations is something done by an input systems rather than a central system, by a module rather than a central processor. Such triggering is something we do automatically (2011b, p. 16).

Notice that this kind of automatic mechanism must be a noncognitive, brute mechanism. It must be informationally encapsulated or cognitively impenetrable. That is, it cannot be semantically or logically related to the beliefs, experience or knowledge states of the agent.¹⁰ It cannot be responsive or sensitive to the meaning or subtleties of what is learned. It must be a more-or-less fixed,¹¹ stupid system. This is because if it didn't function in this way, then it would be intelligent. If it did not function in this way, it could not be modular or automatic.

So, the question that we should ask now is whether automatic, dumb mechanisms can do the job that Stanley recommends for them. The answer, I will argue, is “no.” In the remainder of this section, I will illustrate that any option Stanley chooses for individuating “ways”, and thus the propositional content of knowing how states, will prevent him from relegating the mediation between epistemic states and their

¹⁰ Fodor (1983) and Pylyshyn (1999).

¹¹ The mechanism need not be totally fixed, since it can respond in pre-programmed ways to stimuli. But it must respond to these stimuli in dumb ways: for example, though, sensitization. As such, the thresholds at which it functions can change, but they cannot change in any way that is adaptable to the general knowledge or experience of the agent. The changes themselves must be dumb and automatic.

implementation to stupid, noncognitive, general-purpose processes. If knowing how is knowing a proposition, Stanley needs much more than a widget to get the proposition to be appropriately applied in action.

In the following sections, I will show that the intelligence of knowledge how, on any option of individuating “ways”, will only be appropriate when the application or selection mechanisms that are responsible for triggering propositional states, are sensitive to significance, responsive to meaning, under the control of the agent, and subject to learning and improvement. As such, skilled action will only be possible when these purportedly dumb mechanisms do very smart kinds of things.

3.1 Phoebe learns to serve

In order to elucidate the role that selection or triggering mechanisms will have to play on Stanley’s Intellectualist account of knowing how, I will rely on the following example. I hope that it is clear that nothing much hangs on this particular example. It isn’t especially special. However, it is precisely for this reason that it will allow me to highlight that which any adequate account of intelligent action must be able to handle, and that which Intellectualism of the Stanley-variety cannot.

3.1.1 An example

Phoebe has never played tennis before. She goes to her first tennis lesson and there she learns to serve. That is, the coach teaches her a way to serve and tells her to practice. She practices for a few hours and by the end of her first lesson, Phoebe has gotten pretty good at serving (she’s a fast learner).

Framing our question in Intellectualist terms, we can ask the following: at the end of class, is Phoebe’s serve guided by the same proposition as the one she was taught in the beginning of class, and so, is it just her application of that proposition that has gotten better, or has she learned a new way, and thus, a new proposition that is guiding her serving at the end of class?¹²

Alternately, we can ask, if Phoebe’s epistemic situation is best construed as 1 or 2?

1. At t_1 (near the beginning of class, after the coach has shown her how to serve and she’s succeeded in serving herself once), Phoebe knows some contextually relevant way w such that Phoebe stands in the knowledge relation to the Russellian proposition that w is the way for Phoebe to serve and Phoebe represents w under a practical mode of presentation. And at t_2 (at the end of class), Phoebe knows *the same* contextually relevant way w such that Phoebe stands in the knowledge relation to the Russellian proposition that w is the way for Phoebe to serve and Phoebe represents w under a practical mode of presentation *but she instantiates the knowledge that w is the way to serve better at t_2 than t_1 .*

2. At t_1 (after the coach has shown her how to serve and she’s succeeded in serving herself once), Phoebe knows some contextually relevant way w_1 such that

¹² This is essentially an issue about the gradability of skill. Stanley attempts to (as I will argue, quite unsuccessfully) address this issue in various places, e.g., Stanley and Williamson (2001) and Stanley (2011b).

Phoebe stands in the knowledge relation to the Russellian proposition that $w1$ is the way for Phoebe to serve and Phoebe represents $w1$ under a practical mode of presentation. At $t2$ (at the end of class), Phoebe knows a *different* contextually relevant way $w2$ such that Phoebe stands in the knowledge relation to the Russellian proposition that $w2$ is the way for Phoebe to serve and Phoebe represents $w2$ under a practical mode of presentation and $w2$ is superior to $w1$ as a way of serving.¹³

More colloquially, we can imagine at least two perfectly reasonable responses to our question about what Phoebe has learned in her tennis lesson. We ask Phoebe, “are you serving the way the coach taught you to serve at the beginning of class?” She says “yes, and I’m really getting quite good at it.” Or she says “no, the way I was serving at the beginning of class and the way that I’m serving now are really pretty different. Both are versions of what the coach taught me, but I wouldn’t say that the way I’m serving now and the way I was serving earlier are identical. The way I am serving now is really much better.”

Both responses seem plausible, but Stanley needs only one of them to work in order to defend Intellectualism. On analysis, however, neither response allows propositional thought to do all the intellectual work leaving automatic mechanisms to only trigger, select or apply them. In fact, both options leave a lot (the brunt, even!) of the responsibility for the intelligence manifest in skilled action to the discretion of the triggering or selection mechanism.

Before showing how this is the case, we should notice that the difference in responses here amounts to whether “ways” are individuated in a coarse-grained, general fashion or according to fine-grained, narrow criteria. Importantly, if we choose to individuate ways according to the coarse-grained principle we can do something in the same way, but in a different manner. If we choose to individuate ways according to the fine-grained, narrow principle then doing something in a different manner means doing something in a different way. Stanley suggests that he would choose to individuate ways more finely,¹⁴ but just to be thorough, I’ll run through both options in order to demonstrate that neither works.

3.2 Coarse-grained ways and automatic mechanisms

If we individuate ways in a coarse-grained, general fashion, such that Phoebe could answer that she was serving in the same way at the beginning of her lesson and at the end, let’s see what happens.

We should notice that individuating ways in this manner has several theoretical advantages. For instance, one can perform a skill in the same way at different times and under different circumstances.¹⁵ That is, one can be governed by the same proposition in more than one environment. Further, one would not have to learn a new proposition every time one improved at a skill. Also, different people could know the

¹³ This is the option that Stanley chooses.

¹⁴ See Stanley (2011b, p. 50). “We are comparing the way in which John knows how to play Chopin to the way in which Mary knows how to play Chopin, and declaring the first superior to the second.”

¹⁵ This would be very difficult otherwise, because the particularities involved in action will almost entirely prevent one from doing the exact same thing at two different times or environments. See Fridland (2010) for more on this problem.

same way to perform a skill, they could instantiate the same proposition even at different skill-levels, and they could teach each other that proposition. In short, if ways are general or coarse-grained, then we open the door to both the intrasubjective diachronic and intersubjective synchronic sharing of ways and contents.

Though individuating ways, and thus propositional content, in a coarse-grained manner holds significant theoretical virtue, it is a dead-end for Intellectualism of the Stanley-variety. This is because if we say that Phoebe is serving in the same way at the beginning of her lesson and at the end, that is, if we say that she is governed by the same proposition at both times, then it will turn out that automatic, dumb, triggering mechanisms are almost entirely responsible for her learning and improvement. We would be left saying that it is these automatic mechanisms that account for the differences between a pretty bad, novice serve, and a pretty good, skilled one. After all, the proposition has not changed. Of course, this cannot be right.

According to Intellectualism, the intelligence of a skill must be entirely accounted for in propositional terms. However, if we individuate propositional contents in a coarse-grained manner, then we see that it is not the proposition but the automatic, noncognitive, subpersonal mechanisms that are responsible for the skilled part of skilled action. In fact, it would be these noncognitive mechanisms that are almost entirely responsible for the development of skilled action.

But dumb mechanisms cannot be responsible for the intelligence of skilled action, since such action requires a flexibility, holism, and agency that is not characteristic of subpersonal mechanisms. That is, by definition, modular, automatic, noncognitive, informationally encapsulated mechanisms cannot be sensitive to semantic content, responsive to experience, or under the control of the agent in the way that they would have to be for this account to work. The fact is that if these automatic mechanisms could do all that they need to do in order for this account to work, then they'd be pretty darned smart! They would be carrying a huge portion of the cognitive load. It follows that if one is going to remain a Stanley-type Intellectualist, then the propositional content responsible for knowing how cannot be individuated in a coarse-grained manner.

3.3 Fineness and finesse

3.3.1 *Theoretical considerations*

So, let's turn to the option that Stanley himself endorses: to individuate ways, and thus propositional contents, finely. Let's see what function an automatic mechanism would have to perform if the particularities of skill instantiation are represented by the propositions governing them.

The first thing to notice is that individuating ways in a narrow, fine-grained manner creates a whole host of theoretical concerns. The most obvious is the ontological explosion of propositions that will follow directly from this kind of individuation. This is because, as I (forthcoming, 2010) have argued, skills have to be particularly attuned to the minute details of the environment in which they are performed, if they are going to succeed. After all, if we take a skill like skiing as an example, it becomes obvious that a person could not ski if she were not, for

example, attuned to her particular skeletomuscular constitution, the exact incline and layout of the terrain, the sharpness of her ski's edges, etc. Small differences of this kind turn out to have huge impacts on the instantiation of skilled actions.

However, if every particularity of a skill instantiation is mirrored by a particularity in the proposition that guides it, as it would have to be on the narrow option for individuating ways, then the number of propositions that will exist in order to govern skill instantiations will be nearly infinite. After all, we can either say that we know a general proposition and something else takes care of all the fine-grained stuff or that the proposition that we know is situationally specific and all the fine-grained stuff gets incorporated into the proposition. But on the latter option, it seems that too much detail must be taken into account. This is especially evident if we take high-level athletics as an example, but it is no less true of the motor control involved in skilled actions as simple as reaching and grasping.¹⁶

Importantly, on this account, when we learn a skill, we wouldn't be able to just learn one proposition, but many (an infinite number?). After all, the possession of a skill requires that we are able to instantiate the skill not just one time in one particular setting, but at multiple times and in multiple environments. It follows that we would need to learn and thus know numerous propositions whenever we possessed any one skill. This alone seems suspect, but one might enhance the worry by wondering about where all of these propositions are going to be stored. After all, if to know how to ϕ , one must possess the standing epistemic state that w is the way to ϕ , and then it turns out that to have the skill of ϕ -ing, what one really needs to know is not one way but an almost infinite number of ways that will govern my ϕ -ing in all potential circumstances in which I can ϕ , then it seems that our poor brains just won't have the space. It is enough to make you want to scream, "Oy ve, Jason, the cognitive bloat!"

And the problems go on. I have argued elsewhere that these kinds of finely individuated propositional contents are too particular to be properly construed as states that are composed of concepts. I won't review those arguments here, but it is worth mentioning that the specificity of fine-grained propositional contents is in direct contrast with the requirement that concepts are recombinatorial and general. Concepts, by definition, must be capable of appearing at different times and places and, sometimes even, in the absence of any particular time or place whatsoever. However, the deep context-dependence of skill instantiations thus governed my context-specific propositions, undermines even the most conservative context-independence of concepts.

Lastly, to conclude the theoretical considerations concerning individuating ways in a fine-grained manner, I'd like to contrast this present option with our first coarse-grained alternative. In the former condition, we saw that propositional contents could remain constant over time, change, and the improvements that accompany skill learning. Also coarse-grained propositions could be shared amongst different individuals at different times, with different bodily morphologies, and at different

¹⁶ See Milner and Goodale (1995) for a description of the information required to guide reaching and grasping activities and how this information differs from the information required to guide planning and selection of goals.

levels of expertise. In contrast, the problem with a narrow individuation of content is that it will be nearly impossible for any one person at different times and at different skill levels, or for any two people generally, to share the knowledge how to do something. This is because each instantiation of a skill will be governed by a proposition so specific that it will be nearly impossible for it to work in different conditions. This impossibility of replicating the proposition governing skilled action becomes especially poignant when we consider different individuals who will of necessity have different body types, strengths, and experiences, and whose propositions about the way to ϕ will have take all of these details into account. So, whereas we get knowledge as common and somewhat persistent on the first way of individuating propositional contents, we don't get any such thing on the present option. Every time we act, we act in a particular environment with a particular body at a particular time, and this entails that the proposition that governs the action will be proprietary to both the circumstances and the individual.

But certainly, knowledge shouldn't be like this. Or, at the very least, we should notice that ordinary propositional knowledge is nothing like this. Though the thoughts that I token on different occasion will not be numerically identical, they can certainly be identical in their content. I can think, "Roses are red" in Berlin and I can think, "Roses are red" in New York and I'll be thinking the same thought. But if the propositions governing skillful action are fine-grained, then the proposition that I represent under a practical mode of presentation when I jog in New York will by necessity be different from the proposition that I represent under a practical mode of presentation when I jog in Berlin. This seems to be a problem.

3.3.2 *Automatic mechanisms and fine-grained propositional content*

The above concerns are only background considerations for the main issue that I'd like to explore here: namely, the issue of automatic mechanisms. In the remainder of this section, I will make clear that automatic mechanisms cannot do the job that they are intended to do on the Intellectualist account, even if propositional contents are individuated in a fine-grained manner.

To make this clear, I'd like to expand upon the previous example:

Phoebe continues her tennis lessons and becomes, by all standards, a pretty good overall player. She wins matches regularly, she outperforms her teammates, she competes hard, and she practices hard. But Phoebe has one problem: she's inconsistent. When she plays well, she plays really well but it's just hard to predict when that's going to be. Sometimes she's "on her game" and she's brilliant, but sometimes she's off and then she's not.

Now, returning to the Intellectualist account of knowing how where ways and thus propositional contents are individuated narrowly, we can ask what accounts for the difference between Phoebe when she's a brilliant player and Phoebe when she's just so-so? The Intellectualist, of course, will say that it comes down to which proposition is governing her playing. But then we have to ask, "what makes it the case that she is governed by one proposition rather than another?" Shockingly, on the current theory, that which accounts for the selecting, triggering, or applying of

one proposition rather than another, is an automatic, brute, modular, informationally encapsulated, subpersonal general mechanism. It turns out that the Intellectualist is once again in the awkward position of having to admit that it is the automatic mechanism's selection that accounts for the difference between Phoebe's brilliant performance and her banal one. Again, it is the automatic mechanism but certainly not Phoebe and certainly not the fine-grained, particular proposition itself, that will ultimately account for skillful, appropriate action.

After all, the Intellectualist cannot say that an independent proposition governs the selection of the proposition that governs Phoebe's tennis playing. This is because everyone agrees that such a move will lead to a regress. We know that if we need a rule for applying propositions, and if the rule is propositional, then we'll need another rule in order to apply the first rule and so on *ad infinitum*. Stanley attempts to deflate this regress by positing dumb, automatic mechanisms. These mechanisms are nonpropositional and stupid. They have to be this way, otherwise we'd see that there are nonpropositional but intelligent mechanisms and this would be anathema to Intellectualism.

Unfortunately, however, this is exactly what we get. This is because possessing a proposition is not in any way sufficient for its appropriate application. This becomes especially poignant on the narrow option for individuating ways since for every skill we possess, we possess a multitude of potential action-governing propositions that will often have only very fine-grained distinctions between them. But the smaller the distinctions between propositions, the more work the automatic mechanisms have to do.

As a result, we see that if any mechanism is going to play the functional role that Stanley assigns to automatic processes, that mechanism will have to be intelligent. This is because we have already agreed that if ways are individuated narrowly, we are going to have a huge number of propositions with miniscule differences. That means that the selection or triggering mechanism will have to "decide" or "choose" between those ways. After all, it is precisely the job of this mechanism to mediate between propositions and their expression in behavior.

But if we look at how this mechanism would have to work then we'll immediately see that it is characterized by intelligence. That is, if any process is going to fill the functional role that Stanley recommends, then it will have to be sensitive and responsive to the relevant properties in its environment and trigger or select the appropriate propositions to match those properties. But let's think about how this might be done. Let's think about the infinite number of qualities that could be relevant to consider for any one action, and how the mechanism will have to differentiate between the ones that matter and those that don't. Moreover, this mechanism not only needs to sift out a multitude of irrelevant variables in the environment, it then also has to match the relevant features to the most appropriate of the massively fine-grained propositions that the skilled agent knows.¹⁷ However,

¹⁷ We should notice that this is really just a version of the frame problem [See Dennett (1978) and Fodor (1983)]. We can ask, how is it possible for a system to know which changes, out of the infinite number of variations in its environment, are relevant to consider given its objectives, and which it needs to ignore? It seems that it has to consider all the changes or it has to know which changes to ignore and thus, know to ignore them. This is a problem that is at the very heart of the philosophy of artificial intelligence.

and this is the kicker, in order for it to accomplish this, that mechanism must be sensitive to what the agent knows, what the agent learns, and what the agent experiences. It has to recognize which stimuli are meaningful and which irrelevant, and it has to respond by selecting among fine-grained propositions in a way that best matches them to the most relevant properties. However, practically, this is to say that the mechanism must be intelligent. That is, the mechanism that could do this must be characterized precisely by those properties, e.g., sensitivity, flexibility, adaptability, manipulability, etc., that are the hallmarks of intelligence. After all, it is only mechanisms of this nature that could accomplish all of that.

In conclusion, we see that we need intelligent but nonpropositional mechanisms any which way the Intellectualist chooses to cut ways and content. However, if such mechanisms exist then Intellectualism fails. That is, if we need intelligent mechanism the intelligence of which is not reducible to a propositional state, then the Anti-intellectualist wins. Moreover, as I stated earlier, if Stanley is right about the symmetry between knowing how and knowing that insofar as the regress is concerned but wrong about the role that automatic mechanisms can play, then he will have successfully argued that nonpropositional intelligence is required to account for both intelligent actions and propositional knowledge. I say, “well done!”

References

- Dennett, D. (1978). *Brainstorms*. Cambridge: MIT Press.
- Fodor, J. (1983). *The modularity of mind: An essay on faculty psychology*. Cambridge: The MIT Press.
- Fridland, E. (forthcoming). Knowledge how: Problems and considerations. *European Journal of Philosophy*.
- Fridland, E. (2010). *Perception and skill: Theoretical foundations for a science of perception*. New York: The Graduate Center at CUNY.
- Hawley, K. (2003). Success and knowledge how. *American Philosophical Quarterly*, 40, 19–31.
- Millikan, R. G. (1996). Pushmi-pullyu representations. In J. Tomberlin (Ed.), *Philosophical perspectives*. Atascadero: Ridgeview Publishing.
- Milner, D. A., & Goodale, M. A. (1995). *The visual brain in action*. Oxford: Oxford University Press.
- Pylyshyn, Z. (1999). Is vision continuous with cognition? The case for the cognitive impenetrability of visual perception. *Behavioral and Brain Sciences*, 22(3), 343–391.
- Ryle, G. (1946). Knowing how and knowing that. *Proceedings of the Aristotelian Society*, 46, 1–16.
- Ryle, G. (1949). *The concept of mind*. Chicago: The University of Chicago Press.
- Snowdon, P. (2003). Knowing how and knowing that: A distinction reconsidered. *Proceedings of the Aristotelian Society*, 104(1), 1–29.
- Stanley, J. (2011a). Knowing (How). *Nous*, 45(2), 207–238.
- Stanley, J. (2011b). *Know how*. Oxford: Oxford University Press.
- Stanley, J., & Williamson, T. (2001). Knowing how. *Journal of Philosophy*, 98, 411–444.