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Gilbert Ryle's adverbialism

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ABSTRACT
Gilbert Ryle famously wrote that practical knowledge (knowing how) is distinct from propositional knowledge (knowing that). This claim continues to have broad philosophical appeal, and yet there are many unsettled questions surrounding Ryle's basic proposal. In this article, I return to his original work in order to perform some intellectual archeology. I offer an interpretation of Ryle's concept of action that I call 'adverbialism'. Actions are constituted by bodily behaviours performed in a certain mode, style or manner. I present various challenges to adverbialism – scenarios in which it seems we publicly behave one way, but privately feel another. And I offer a response – Ryle's stated practice of re-describing those situations in ways that pose no threat to his adverbialism. I also present an interpretation of practical knowledge in Ryle's work. Knowing how is a special kind of action, undertaken only when we progressively self-modify our behaviours in the presence of new challenges or opportunities.

1. Introduction

Gilbert Ryle famously wrote that practical knowledge (knowing how) is distinct from propositional knowledge (knowing that) (Ryle, 'Knowing How and Knowing That', *The Concept of Mind*, 'Thinking and Self-Teaching', *On Thinking*). This claim continues to have broad philosophical appeal, and yet there are many unsettled questions surrounding Ryle's basic proposal: Are knowing how and knowing that genuinely distinct kinds of knowledge? Are they truly dissociable? Is one more fundamental? Are there additional distinct types of knowledge, for example, knowledge by acquaintance (knowing who)? A potential problem with these queries, as they are raised in journal articles, edited volumes, and books, is that they may be wrong about what *Ryle himself* took practical knowledge to be. For example, in Jason Stanley and Timothy Williamson's much-discussed piece 'Knowing How', they

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confidently assert that, 'according to Gilbert Ryle … knowledge-how is an ability, which is in turn a complex of dispositions' (Stanley and Williamson, 'Knowing-How').[1] By comparison, on the interpretation of practical knowledge that I will present, know-how is a special kind of action, undertaken only when we progressively self-modify our behaviour in situations that present new challenges or opportunities. Knowing how is no more 'a complex of dispositions' on Ryle's view than the Beatles were a skiffle group.

In this article, I return to Ryle's original work in order to perform some intellectual archeology. I describe the 'official doctrine' he rejected and the view he offered in its stead – what I call 'adverbialism'. This is the view that all actions are constituted by bodily behaviours performed in a certain mode, style or manner. I present various challenges to adverbialism, scenarios in which it seems we publicly behave one way, but privately feel another. And I offer a response – Ryle's stated practice of re-describing those situations in ways that pose no threat to his adverbialism. I also present an interpretation of practical knowledge in Ryle's work, and some of its unexpected consequences.

To be clear about the aim of this article, while I do hope my investigation will be illuminating both as a piece of history and as a potentially attractive view, it is not my goal here to make any moves in the contemporary debates about the relation between practical knowledge and propositional knowledge, even if my historical legwork ultimately provides a new perspective on those arguments.

1.1. Cartesian troubles

Ryle criticized a philosophical orientation he referred to as 'Descartes' Myth' – at other times 'the official doctrine', 'the official theory', and 'the dogma of the Ghost in the Machine' (*The Concept of Mind*, 11, 15).[2] The Official Doctrine is

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[1]Many contemporary theorists attribute this view to Ryle—that practical knowledge is a particular disposition to behave—such as Hyman, 'How Knowledge Works', Stanley and Williamson, 'Knowing-How', Rosefeldt, 'Is Knowing-How Simply a Case of Knowing-That?', Snowdon, 'Knowing How and Knowing That', Cath, 'Knowing How Without Knowing That', Fantl, 'Knowing-How and Knowing-That', Bengson, Moffett and Wright, 'The Folk on Knowing How', Stanley, *Knowing How*, Sax, 'Having Know How', and Wiggins, 'Practical Knowledge'. Others offer richer glosses on Ryle's view—such as Melser, *The Act of Thinking,* Hetherington, 'How to Know (that Knowledge-That is Knowledge-How)', Jackson, 'Gilbert Ryle and Maurice Merleau-Ponty's Critique of Descartes', Tanney, 'Rethinking Ryle', Stout, 'What You Know When You Know the Answer to a Question', Fantl, 'Ryle's Regress Defended', Glick, 'Abilities and Know-How Attributions', Fridland, 'They've Lost Control', Kremer, 'A Capacity to Get Things Right', Löwenstein, *Know-How as Competence*, Bäckström and Gustafsson, 'Skill, Drill, and Intelligent Performance', Weatherson, 'Intellectual Skill and the Rylean Regress', and Elzinga, 'Self-Regulation and Knowledge How'.

[2]Many scholars have referred to the Official Doctrine as 'Intellectualism' and 'Cartesianism'. As Julia Tanney writes in 'Rethinking Ryle', a critical commentary in the introduction to the most recent 2009 edition of *The Concept of Mind*, 'whether or not every aspect of the resulting 'two-world' view is properly attributed to Descartes, it is, *grâce à* Ryle, a familiar view, which has widely become known as *Cartesianism* in Anglo-American philosophy' (Tanney, 'Rethinking Ryle', xii). While Ryle wrote that the Dogma 'hails chiefly from Descartes' (Ryle, *The Concept of Mind*, 11), and he did use the terms 'Intellectualist' and 'Cartesian', he did not use 'Intellectualism' or 'Cartesianism' in *The Concept of Mind*, and only extremely rarely

not an explicit historically grounded theory, directly attributable to some philosopher or other. It is not the same as substance dualism, for instance. In fact, in the opening salvo of *On Thinking*, Ryle accused both dualism *and* reductionism of subscribing to the Dogma (*On Thinking*, 17–18) – a point that some contemporary theorists have recognized, as when Daniel Dennett criticizes what he calls 'Cartesian Materialism' (Dennett, *Consciousness Explained*, 107). What these Cartesian views have in common are habits of thought (e.g. tacit assumptions, pretheoretical intuitions, intellectual predilections) about the mental and the physical and their relation – specifically, the mind and the body are two separate existences, with different sorts of properties, joined together within a living person, by the relation of cause and effect.

In an early, extended description of the Dogma in *The Concept of Mind*, in the voice of the Cartesian, Ryle wrote:

> Human bodies are in space and are subject to the mechanical laws which govern all other bodies in space. Bodily processes and states can be inspected by external observers … But minds are not in space, nor are their operations subject to mechanical laws. The workings of one mind are not witnessable by other observers; its career is private.
>
> (*The Concept of Mind*, 11)

The body and its processes are distinct from the mind and its workings.

Nevertheless, these two parallel existences are related. Again, ventriloquizing the Cartesian, Ryle wrote:

> What the mind wills, the legs, arms and the tongue execute; what affects the ear and the eye has something to do with what the mind perceives; grimaces and smiles betray the mind's moods and bodily castigations lead, it is hoped, to moral improvement.
>
> (*The Concept of Mind*, 12)

Action, perception, and emotion are consequences of causal interactions between the mental and the physical.

Ryle was clear that although the Official Doctrine is not a well-defined theory, it is not to be handled lightly. He claimed that Descartes' Myth is linked to powerful intuitions about the metaphysical status of its constituents. As he put it:

> Underlying this partly metaphorical representation of the bifurcation of a person's two lives there is a seemingly more profound and philosophical

in his other works. The reason may be that doctrines and dogmas are not the same as explanations and theories. Calling the Official Doctrine 'Intellectual*ism*' or 'Cartesian*ism*' might suggest (wrongly) that it is a well-defined metaphysical theory (a la dual*ism*), which would be incorrect. In general, Ryle declared that 'there is no place for 'isms' in philosophy' because they encourage us to pick sides, often uncritically, in already sedimented debates (Ryle, 'Taking Sides in Philosophy', 317). Michael Kremer presents a thorough historical perspective on the issue of who (or what) was implicated by the Official Doctrine (Kremer, 'Ryle's 'Intellectualist Legend' in Historical Context').

assumption. It is assumed that there are two different kinds of existence or status. What exists or happens may have the status of physical existence, or it may have the status of mental existence.

<div align="right">(The Concept of Mind, 13)</div>

In other words, the Dogma is underpinned by a specific ontology, one in which the mind and body occupy two different categories of existence, related through cause and effect. And this ontology manifests itself in our everyday folk practices. For example, when a moviegoer exclaims, 'that actor is so talented!' it seems like she is describing what she sees and hears – a performer, convincingly inhabiting a role, on film. But the moviegoer is also issuing a 'quasi-ontological statement' (Ryle, 'Systematically Misleading Expressions', 45). The grammar of her sentence implies that talent is something the actor *has* – private, privileged, and possessed – which is translated into to public behaviour through an act of will. The talent (internal) causes the performance (external), two linked but distinct things. The moviegoer's exclamation expresses a metaphysical view – and a Cartesian one at that – about the status of the mind, the body, and their relation.

What alarmed Ryle most about the Official Doctrine in its various guises was not its ontological commitments *per se* (though they bothered him plenty). Rather, the chief problem Ryle had with the Official Doctrine was its logical form. He insisted that the mind and the body are not the right logical types to be separate existences, related to one another as cause and effect. Like a spectator who watches the baton twirlers, marching bands and classic cars pass by, but then wonders when the parade starts, the Cartesian observes bodily behaviours, and then asks what mental processes cause those behaviours. Ryle argued that the Cartesian – like the spectator at the parade – does not know how to wield his concepts properly. By treating the mind and the body as separate existences, related causally, the Cartesian commits a 'category mistake' (*The Concept of Mind*, 16). In at least three of his works, Ryle presented two distinct infinite regresses that are generated by this category mistake ('Knowing How and Knowing That', 223–35; *The Concept of Mind*, 294–6; *On Thinking*, 31, 81).[3] The Official Doctrine, Ryle argued, was logically untenable.

Whatever we think about Ryle's gripes with the logic of the Dogma, his writing was devoted almost entirely to developing a positive alternative to

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[3]On the success or failure (and scope) of these regress arguments, see Stanley and Williamson, 'Knowing-How', Noë, 'Against Intellectualism', Hetherington, 'How to Know (that Knowledge-That is Knowledge-How)', Hornsby, 'Ryle's Knowing-How, and Knowing How to Act', Fantl, 'Ryle's Regress Defended', Stanley, *Knowing How*, Snowdon, 'Rylean Arguments', Cath, 'Regarding a Regress', Fridland, 'Problems with Intellectualism' and 'Knowing-How', Löwenstein, 'Why Know-How and Propositional Knowledge are Mutually Irreducible' and *Know-How as Competence*, Kremer, 'A Capacity to Get Things Right', Weatherson, 'Intellectual Skill and the Rylean Regress', Bäckström and Gustafsson, 'Skill, Drill, and Intelligent Performance', and Valaris, 'Thinking by Doing'.

the Dogma. How should we understand the relation between the mental and the physical *without* committing the category mistake made by the Official Doctrine and its corollaries? Ryle gave us more than a hint by offering the notion of 'mental-conduct' in *The Concept of Mind* (*The Concept of Mind*, 7, 16, 19, 21, 23, 25, 26, 53, 68).

1.2. Adverbialism

According to Ryle, mental-conducts are *bodily behaviors that manifest manners.* In his words, we find mental-conducts when bodily behaviours are 'being done or happening in a certain manner or in a certain way' (*On Thinking*, 19) or when 'several complex antecedent and collateral conditions are satisfied' by bodily behaviours (*On Thinking*, 82). And these mental-conducts comprise the sum total of human actions.

Ryle had nuanced things to say about what constitutes *bodily behaviours*.[4] But the key idea here is *manners*. Generally, a manner can be understood as an extensive complex of conditions under which bodily behaviours are shaped and executed, grouped and recognized, as a particular action.[5] That is, they are the structures that make bodily behaviours intelligible. In this sense, manners are *not* mental events anterior to or occurrent with bodily behaviours; they are *not* the causal source of bodily behaviours. Rather, manners involve the *frame, style* or *attitude* of bodily behaviours, what Ryle called 'the style, method or *modus operandi*' of the living body ('Knowing How And Knowing That', 224; see also *The Concept of Mind*, 48). Manners also express the *situation* in which bodily behaviours occur – the ways in which bodily behaviours are modified by the people, spaces and places in which they unfold. And manners indicate the *reception* bodily behaviours receive from others, making them public, shared criteria. In some cases, manners may denote matters of degree, key relations, or points of view. As a rule of thumb, as Ryle himself acknowledged, if it can be captured with an *adverb*, it is a manner (e.g. *The Concept of Mind*, 111; *On Thinking*, 19).[6]

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[4]See the discussion of bodily behaviours in *Section 1.3: Systematically Misleading Statements.*

[5]I can find one author who offered this analysis, Thomas Bestor, in an article dating back to 1979. In 'Gilbert Ryle and the Adverbial Theory of Mind', Bestor claimed that Ryle's understanding of action is better captured by manners than by dispositions. Bestor claimed that Ryle himself agreed, citing 'personal communications' they shared in 1976. Michael Kremer's work, ''One of My Feet Was Still Pretty Firmly Encased in This Boot': Behaviorism and *The Concept of Mind*' also presents Ryle's ambivalence about dispositions.

[6]There are no necessary or sufficient criteria that behaviours must meet to express a particular manner. 'Being sulky or hilarious requires some or other of these [manners] and further appropriate actions and reactions, but there is no one of them which is a necessary or sufficient condition of being sulky or hilarious' (*The Concept of Mind*, 96). Nevertheless, Ryle did seem to believe that if one responds hilariously, then the response meets at least one condition that warrants our attaching the adverb to the verb. For instance, a gesture can be hilarious, even if no one laughs aloud, it occurs out of sight, and so forth, so long as some other condition associated with hilarity is met.

Ryle was very careful in his subsequent descriptions of actions, as co-constituted by bodily behaviours and manners, and wanted us to be too. In order to characterize what action is performed, Ryle believed that it is insufficient to say, for instance, 'the comedian tripped'. While such a description would capture the performer's bodily behaviour – observable muscular movements, position of limbs, angles of joints, sequence of events (e.g. having tripped often entails first having been walking) – it does not capture the performer's mental-conduct. In this sense, tripping is an '*unfinished*' description of what action has been performed ('Thinking and Self-Teaching', 226; *On Thinking*, 20, 21). To be a finished description of an action, tripping must manifest a manner, like *cleverly*. What Ryle wrote about a clever clown is apt here. 'He trips and tumbles just as clumsy people do, except that he trips and tumbles on purpose and after much rehearsal and at the golden moment and where the children can see him and so as not to hurt himself' (*The Concept of Mind*, 33). The clown (like the comedian) *trips cleverly* because his behaviours satisfy a variety of conditions. That said, in ordinary conversation, we often use behaviour descriptors *sans phrase* to refer to actions because the manner is discursively implied. When we say, 'the comedian tripped', it is understood that he wanted his feet to be entangled, that his fall was not injurious, that the cameras were rolling, that it made us laugh, and so forth. It is 'implicitly specified' that he tripped *cleverly* and not *clumsily* (*On Thinking*, 21).

Being similarly careful of our descriptions of actions, in order to convey what action a dancer performed, Ryle held it is insufficient to say, for instance, 'the dancer was graceful'. While such a description may capture the overall manner of the dancer's performance – the conditions to which a variety of her bodily behaviours conform – it does not describe the totality of the dancer's action. In this sense, being graceful is itself not an action; it is an *incomplete* description of what action has been performed. On Ryle's view, grace is a manner that must be manifest in bodily behaviours to be a complete action (as in 'her leg extended gracefully'). On this last point, Ryle wrote, 'there is and can be no such thing as, for example, just obeying *per se* or just accelerating *per se*. Something positive or concrete must be being done … I can stand still obediently or disobediently, but I cannot just be obeying or disobeying *sans phrase*' (*On Thinking*, 17). In everyday conversation, we certainly do use shorthand, as when we describe a dancer as graceful. But here again, this convenience depends on its being understood that the dancer pirouettes smoothly, creates long lines with her extended limbs, lands softly on her feet, and so forth – the hallmarks of moving gracefully.

In emphasizing descriptions of actions that are unfinished (no manner specified) and incomplete (no bodily behaviour identified), Ryle was reminding us that actions *qua* mental-conducts involve both constituents. Because

he often described actions with verb-adverb pairs, I am going to call the view I am excavating 'Ryle's adverbialism'.[7]

1.3. Systematically misleading expressions

> [Descartes] could in principle never recognize the difference between the rational and the irrational utterances issuing from other human bodies, since he could never get access to the postulated immaterial causes of some of their utterances. Save for the doubtful exception of himself, he could never tell the difference between a man and a Robot … Instead of asking by what criteria intelligent behavior is actually distinguished from non-intelligent behavior, [Descartes] asked, 'Given that the principle of mechanical causation does not tell us the difference, what other causal principle will tell it us?'
>
> (*The Concept of Mind*, 21)

How does adverbialism treat different actions that involve the same overt bodily behaviour – its handling of a classic objection to philosophical behaviourism? The *super stoic* who feels pain but exhibits no pain-associated behaviour, the *perfect actor* who exhibits pain-associated behaviour but feels fine, these imagined examples seem to pose problems to any view wherein the mind is constituted by bodily behaviour (Putnam, 'Brains and Behavior'; Lewis, 'An Argument for the Identity Theory').[8] Of course, Ryle's adverbialism is not such a view – mental-conducts are constituted by bodily behaviours *and* manners. But it may be worth explaining how Ryle would respond to this type of objection, which he seemed to be aware of, before it was even communicated in print.

To begin, Ryle observed, 'it is possible, if not very common, for two or more overt actions done in quite dissimilar frames of mind to be photographically and gramophonically as similar as you please' (*The Concept of Mind*, 140; see also *On Thinking*, 81). It is notable that he thought it was 'not very common' for the exact same bodily behaviours to amount to different actions. Ryle understood that bodily behaviour is not limited to, for instance, an easily observable

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[7]I am aware of the irony in attributing this 'ism' to Ryle who, as already noted, was highly suspicious of 'isms'. That said, Ryle himself admitted 'my 'ism' exists, doubtless, but it is not a banner so much as a susceptibility' ('Taking Sides in Philosophy', 317). Consider adverbialism his susceptibility. I am appropriating the term from John Hyman's description of knowledge as an 'adverbial ability', a view motivated in part by Ryle's work, and from David Melser's reading of Ryle as having an 'adverbial theory of thinking' (Hyman, 'How Knowledge Works'; Melser, *The Act of Thinking*). Independent of these authors, I developed my own analysis of Ryle as having an 'adverbial theory of mind' (Jackson, 'Gilbert Ryle and Maurice Merleau-Ponty's Critique of Descartes'; Jackson 'Gilbert Ryle and Maurice Merleau-Ponty's Adverbialist Theory of Mind'). I borrowed the term from the philosophy of perception, in which adverbialism was a short-lived view put forward by Roderick Chisholm, 'The Status of Appearances', Wilfrid Sellars, 'The Adverbial Theory of the Objects of Sensation', and Michael Tye, 'The Adverbial Approach to Visual Experience'. They characterized perception as an act of sensing, modified in different ways, so to constitute different perceptual experiences.

[8]I understand philosophical behaviourism as the view whereby statements about the mind are fully translatable to statements about behaviour (viz. mental states are nothing more than behaviour states). Michael Kremer offers a nuanced discussion of Ryle's relation to philosophical behaviourism (Kremer, ''One of My Feet Was Still Pretty Firmly Encased in This Boot': Behaviorism and *The Concept of Mind*').

movement of a limb. Bodily behaviour involves the whole body-complex moving through space and over time. Moreover, micro-expressions, postural changes, muscle tension, 'tones of voice … gestures and facial expressions' and the like – though not easily articulable – are nonetheless key elements of bodily behaviour (*The Concept of Mind*, 115). Thus, it would be quite rare for one or more bodily behaviours to be visually or auditorily identical – for the total observable macro and micro movements of the whole body to be exactly the same over a relevant period of time.

Nevertheless, what would Ryle say about two displays of bodily behaviour that look and sound at least similar enough? It all depends on whether or not the behaviours are performed in the same manner (e.g. 'Knowing How And Knowing That', 224; *The Concept of Mind*, 140; *On Thinking*, 81). To use Ryle's example, 'a person playing a piece of music on the piano may be doing this for his own pleasure, or to please an audience, or for practice, or for instruction purposes, or under duress, or as a parody of another pianist, or quite absent-mindedly and by sheer rote' (*The Concept of Mind*, 140). In other words, the same piano playing behaviour can manifest a variety of different manners. For instance, when playing *practicingly*, keeping time with a metronome may be required, and perhaps the opposite, when playing the piano *passionately*. Or when playing 'My Funny Valentine' *improvisationally*, being able to play the original score may be required (insofar as improvisation in this context involves deviating from the songbook), and perhaps the opposite when trying to play 'My Funny Valentine' *rotely*, which requires no improvisational skill. Even if the bodily behaviours involved in these scenarios are effectively equivalent, the student, the artist, the improviser and the memorizer are all doing it differently. They are performing different actions. On Ryle's view, what distinguishes these actions is not some antecedent mental or brain event. It is the pairing of behaviour and manner. In Ryle's words, what differentiates these performances 'is not their parentage but their procedure … [They have] a special procedure or manner, not special antecedents' (*The Concept of Mind*, 32).

It is easy to extrapolate what Ryle would say about the purely hypothetical entities – the super stoics and the perfect actors – sent to attack behaviourism. Their behaviours may be 'photographically and gramophonically' indistinguishable from a person who feels quite differently. But the absence of a behavioural difference does not mean we have to look behind the publically observable world to understand how unalike they truly are. To paraphrase Ryle's response to Descartes from the epigraph of this section, the question we should ask about behaviourally indistinguishable creatures is by what public criteria are their behaviours actually distinguishable? And therein is Ryle's response. The *manners* of a super stoic in pain *versus* those of an ordinary person feeling well, or of an ordinary person in pain *versus* those of a perfect actor playing it up, are radically dissimilar. For instance, to be a

super stoic is to do everything *stoically* – to speak flatly in situations that call for anguish, to hide one's feelings whenever people are paying attention, to be apathetic in situations that are joyous. To be a super stoic is to do a lot of things – speaking, standing, staring – in a *spartanly* manner. In other words, the actions of the super stoic, the perfect actor, and the ordinary person are different because the conditions under which their bodily behaviours are shaped, grouped and recognized – the *frame* of behaviours, the *situations* in which those behaviours occur, and the *reception* those behaviours receive from others – are different.

It is significant that Ryle spent little to no time wrestling with these merely logically possible creatures. What he did do was devote countless pages to the *actual* ways in which people appear to behave publicly one way but feel privately another (or not at all). These real-world challenges to Ryle's adverbialism not only tested the explanatory power of his own view, but also demonstrated the pervasiveness of the Official Doctrine in our descriptions of people's lives, and Ryle's desire to replace it. It would not be inaccurate to describe his handling of these everyday cases, in which it seems we behave one way but feel another, as 'the exercise of systematic restatement' ('Systematically Misleading Expressions', 64; see also *The Concept of Mind*, 138).

In Ryle's 1932 article, 'Systematically Misleading Expressions', he observed that 'there are many expressions which occur in non-philosophical discourse … couched in grammatical or syntactical forms which are in a demonstrable way improper to the states of affairs which they record (or the alleged states of affairs which they profess to record)' ('Systematically Misleading Expressions', 43–4). Ryle's idea was that language does not merely reflect the way we think about the mental and the physical and their relation. If used regularly enough, quasi-ontological statements can generate quasi-ontological commitments – commitments we might never have considered, or that we may or may not agree with, but which will sediment how we think, as we continue to use those seemingly innocuous expressions. Because of this, Ryle coached that 'while a fact or state of affairs can be recorded in an indefinite number of widely differing grammatical forms, it is stated better in some than in others. The ideal, which may never be realized, is that it should be stated in a completely non-misleading form of words' ('Systematically Misleading Expressions', 62). Thus, when possible, he believed that our language should align with our preferred metaphysics – which in Ryle's case was a world comprised of public, shared, and observable things, processes, and events.

For an example of how the art of systematic restatement works, consider the family of actions marked by *the apparent absence of bodily behavior*: 'neglecting', 'obstructing', 'hiding', 'abstaining', 'dieting' and so forth (*On Thinking*, 105, 108, 115). Here we want to say that a person has done

something in virtue of *not* doing anything. They seem to be 'the agent's intentional *non*-performance of some specifiable action' (*On Thinking*, 105). *Prima facie*, this would seem problematic for Ryle's adverbialism. For instance, the expression 'I forgot my passport' appears to record a state of affairs in which an action has occurred that lacks behavioural expression. When I forget something, it seems like I do not do anything concrete. And if I did do something concrete, like pat my pockets or say 'I forgot my passport!' then I would not be forgetting. And yet forgetting seems like a genuine action. How do we characterize the mental-conduct in this example, if there is one? According to Ryle, the utterance 'I forgot my passport' is grammatical and meaningful, but it is misleading in the state of affairs it purports to describe. He observed that some active verbs (like 'to forget') do not denote any concrete activity, but rather serve as a 'negative' or 'nullifying' operation on other verbs (*On Thinking*, 105, 113). *They are hidden modifiers*. Ryle proposed conjugating these active verbs into adverbs, and then combining them with concrete active verbs, the result being verb-adverb pairs that, on his view, can signify actions. Thus, 'forgot' should be transformed into 'forgetfully' which, when paired with 'to leave', generates the verb-adverb pair *left-forgetfully*, as in 'I left my passport forgetfully', which does describe an action on his view. I walked past my dresser, left my house and went to the airport – all bodily behaviours. But I did them in a certain way, *forgetfully*, not on purpose, without checking for my passport, while still checking for other things. Ironically, for Ryle, the expression 'I left my passport forgetfully' may not sound grammatical, but it is meaningful, and it is not systematically misleading.

Consider another example of how Ryle's exercise of systematic restatement operated, cases involving *personality, moods, and character* (e.g. *The Concept of Mind* 85–86, 96, 99). These are attributions that do not involve *constant* behavioural expression, but still seem to involve an ever-present mental quality. We describe people as frivolous, depressed, lighthearted, thoughtful, anxious, mean, methodical, obedient, and so on. But we say these things about people even when they aren't behaving in ways that are explicitly related to those descriptors. *Prima facie*, this too would seem problematic for Ryle's adverbialism. For instance, isn't Scrooge always being stingy, whether or not he is expressing it behaviourally? That is, we are inclined to conceive of stinginess as something Scrooge always possesses in his soul, which causes him to do periodic but predictable things: to not heat the office when it is cold, to withhold a bonus from Bob Cratchet, to say 'bah humbug!' But according to Ryle, while the sentence 'Scrooge is stingy' is neither false nor nonsensical, it is misleading, in that it makes us think it records an ongoing psychological state of affairs that gives rise to only occasional behavioural expression. In Ryle's words, 'in saying that he is in a certain mood we are saying something fairly general; not that he is all the

time or frequently doing one unique thing, or having one unique feeling, but that he is in the frame of mind to say, do and feel a wide variety of loosely affiliated thing' (*The Concept of Mind*, 99). Stingy is a particular kind of manner – an enduring, chronic one – that groups together a variety of punctuated bodily behaviours. Thus, to better capture the situation, the adjective 'stingy' should be conjugated into the adverb 'stingily', where 'stingily' signifies an assemblage of many different behaviours that share a certain style. Like a tornado that grows in force, it absorbs behaviours under a single term, personality, moods and character are 'conditions which in a certain way *collect* occurrences, but they are not themselves extra occurrences' (*The Concept of Mind*, 83).

In sum, there are many cases, both hypothetical and real, easily expressed in our language (and bolstered by our grammar), in which mentality appears behaviourally covert. Ryle argued that many, if not all, of these cases involve mental-conducts, best characterized adverbially – ways of doing concrete things (sometimes many disparate concrete things) that hang together, under the umbrella of manners. All we have to do is practice the exercise of systematic restatement. To this end, Ryle revelled in concocting endless neologisms. People behave 'exploringly', 'practisingly', 'cancellingly', 'rehearsingly, 'recapitulatingly', and 'self-coachingly' ('Thinking and Self-Teaching', 228; *On Thinking*, 25–6, 38). And, a personal favourite, a person did not do two things when he hurried through breakfast, namely, eating breakfast and hurrying; he did one thing in a certain way, 'he breakfasted hurriedly' (*On Thinking*, 28).

1.4. Knowing how

It is natural to say about anything we do well, that it is something we *know how* to do – we make omelets, we ride bikes, we have conversations, we drive to work, we walk on slippery surfaces without falling, we competently manage the challenges great and small of everyday life. We do all sorts of things that seem to deserve the designation 'know-how'.

As Ryle wrote, 'when a person knows how to do things of a certain sort … his performance is in some way governed by principles, rules, canons, standards or criteria' ('Knowing How And Knowing That', 228). Knowing how is a mental-conduct – but a very special kind. While Ryle never explicitly defined practical knowledge in his work, he did give many examples, which upon careful study appear to share three specific traits: (1) the agent who knows-how is to some degree *aware of the conditions of satisfaction* for her action – what would have to be the case for the action to be performed successfully; (2) the agent who knows-how *regulates her behaviour* in light of those conditions; and (3) the *situation must present a novel challenge or opportunity* to the agent who knows-how. In what follows, I will explain these three

characteristics in greater detail. What emerges is a view whereby practical knowledge is a particular kind of action involving progressive self-modification – an iterated series of behaviours in which the current behaviour is modified by the success or failure of its predecessors – within novel situations.

First, practical knowledge requires agents to be aware of their performance's success conditions. For example, a student must have some grasp of the criteria for spelling *correctly* in order to know how to spell. As Ryle wrote:

> However excellent may be the native or unschooled wits of the absolute novice, he cannot avoid, lament or correct mistypings or misspellings, since he has not begun to learn how to type or how to spell. He cannot even make mistakes. Infants in the cradle commit no fallacies, no misspellings, no miscalculations – and no social gaffes either.
>
> (*On Thinking*, 23)

Indeed, the absolute novice who does not know how to spell cannot misspell. But when one or more of those conditions for success and failure is grasped, the student gains a foothold on practical knowledge. Awareness of success conditions gives us the 'lines or courses of action by which we can abide or from which we can deviate' (*On Thinking*, 116). But failure may still be likely. 'Mistakes', Ryle wrote, 'are the exercises of competence' (*The Concept of Mind*, 60). In a sense, this first feature of knowing how (viz. awareness of satisfaction conditions) is connected to learning what counts as performing a particular action. In Ryle's words, one must be one's own 'unmetaphysical referee' of what one is doing and how well one is doing it (*On Thinking*, 82).

But if practical knowledge were just awareness of satisfaction conditions, then we would be hard pressed to distinguish habits from skills. Practical knowledge requires something more – the regulation of our own bodily behaviours in light of those successes and failures.[9] As Ryle wrote, 'it is of the essence of *merely habitual* practices that one performance is a replica of its predecessors. It is of the essence of *intelligent* practices that one performance is modified by its predecessors. The agent is still learning' (*The Concept of Mind*, 42, *emphasis added*; see also 'Knowing How And Knowing That', 15). In other words, both habits and skills require being aware of one's successes and failures. But where habits merely reproduce past performances, skills are revised in light of them.

Here too, the connection between knowing how and learning how is striking. Readers of Ryle may notice that his discussions of practical knowledge often involved long descriptions of the relationship between teachers and

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[9]Other theorists have also interpreted Ryle as claiming the core of know-how is success resulting from self-modification in the face of challenges and opportunities—such as Melser, *The Act of Thinking*, Tanney, 'Rethinking Ryle', Stout, 'What You Know When You Know the Answer to a Question', Glick, 'Abilities and Know-How Attributions', Fridland, 'They've Lost Control', Kremer, 'A Capacity to Get Things Right', Löwenstein, *Know-How as Competence*, Bäckström and Gustafsson, 'Skill, Drill, and Intelligent Performance', and Elzinga, 'Self-Regulation and Knowledge How'.

students, experts and apprentices, officers and recruits, coaches (and referees) and players (e.g. 'Knowing How And Knowing That' 6–7, 14–15; *The Concept of Mind*, 40–2, 129, 147–8, 231; 'Thinking and Self-Teaching' 218–19; *On Thinking*, 67–8, 74–5). Ryle analogized what a teacher does for a student with what we do for ourselves when exhibiting practical knowledge. For example, when a student is presented with a challenging task, the teacher breaks down that task into its simpler parts and then builds it back up again. She demonstrates how similar problems are solved; with bad answers, she shows the student what not to do. She imparts that past failed attempts are unworthy of another try. Perhaps it would be better, she instructs, to try something else, guess in a process of elimination, or even guess at random, if no other options present themselves might work. And she makes the student practice by giving him tasks similar to the problem at hand, until the student can actually do the problem at hand. But the student does not know-how, in the sense Ryle cared about, until he has learned *to do this for himself,* to correct his own movements and avoids missteps, to teach himself.[10] That is, the student exhibits practical knowledge when he applies the conditions of success and failure to his own bodily behaviours and, depending on the results, *modifies* his bodily behaviours accordingly. As Ryle wrote:

> We reserve this title [intelligence] for the persons responsible for their performances. To be intelligent is not merely to satisfy criteria, but to apply them; to regulate one's actions and not merely to be well-regulated. A person's performance is described as careful or skillful, if in his operations he is ready to detect and correct lapses, to repeat and improve upon successes, to profit from the examples of others and so forth. He applies criteria in performing critically, that is, in trying to get things right.
>
> (*The Concept of Mind*, 28–9)

Practical knowledge involves progressive self-modification.

The third feature of knowing how is easier to miss than the first two. Ryle observed that all situations – problems, challenges, opportunities – are mixtures of the unfamiliar and the familiar. 'The world and what occurs in it are, with a few exceptions, neither like a chaos nor yet like clockwork' (*On Thinking*, 124). When we respond to the features of a situation that are familiar, the same old answers will do – we fall back on 'sheer habits' and 'blind impulses' (*The Concept of Mind*, 40). These actions (and they are genuine actions on Ryle's view) are rote, drilled, reflexive, automatic, and according to Ryle 'can be done perfectly without exercising intelligence' ('Knowing How And Knowing That', 15). In other words, the more the present resembles the past, the less we rely on progressive self-modification to solve the

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[10]This is not to say that the student must be able to teach others how he solved the problem. It is possible that the student 'eventually solved his problem without once during the entire course of his ponderings being yet equipped to teach himself or anyone else its solution' (*On Thinking*, 74). Agents do not need to be able to articulate (to themselves or to others) what the satisfaction conditions are.

problems before us. But when we must respond to the features of a situation that are unfamiliar, a different kind of answer is necessary. Whereas replication erodes intelligence, novelty accretes it.

Ryle's insight was that that *novel situations* require *innovative responses* – behaviours that are undrilled, unrehearsed, and unprecedented.[11] In his words, 'to a partly novel situation the response is necessarily partly novel' (*On Thinking*, 125). This is why Ryle strategically interspersed terms like 'fresh', 'novel' and 'new' in his examples and assertions about 'thinking' and 'understanding' and 'intelligence' – because novelty sets the conditions for the emergence of practical knowledge (e.g. *The Concept of Mind*, 42–3, 47; 'Thinking and Self-Teaching' 220–1, 228; *On Thinking*, 56, 61, 71, 121, 125, 129). That is, the newness of the situation transforms what might otherwise be a blind habit into a potentially skilful response. Being poised for progressive self-modification depends, in a non-trivial way, on novelty. Here again the parallels between knowing how and learning how surface. Learning always involves a certain degree of newness. Thus, learning how opens the agent up to novelty. Knowing how finds a way to harness it. 'Thinking' Ryle declared, 'is, at the least, the engaging of partly trained wits in a partly fresh situation. It is the pitting of an acquired competence or skill against unprogrammed opportunity, obstacle or hazard' (*On Thinking*, 129; see also 'Thinking and Self-Teaching', 217; *On Thinking*, 63, 121, 130).

Putting these three points together, I would like to characterize Ryle's account of practical knowledge as a kind of *progressive self-modification – an iterated series of behaviours in which the current behaviour is modified by the success or failure of its predecessors – within novel situations.*[12]

There is an unusual consequence of this interpretation of practical knowledge that I wish to point out and, to a certain degree, embrace. I

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[11]By 'novel' I do not mean that the situation must be new in every which way, otherwise it might be unrecognizable as a situation. But the total situation must be new in some way that is heeded by the agent, and thus relevant to the constitution of the action. Perhaps it is applying a tried-and-true solution to a new problem, offering a new solution to an old problem, or operating where both problem and response are new in some way. Benjamin Elzinga recognizes the importance of trying new things in Ryle's account of knowing how (Elzinga, 'Self-Regulation and Knowledge How'). An interesting question is whether skill is a condition for the emergence of novelty (Elzinga's reading of Ryle) *or* whether novelty is a condition for the emergence of skill (my reading of Ryle).

[12]Here we come face-to-face with the contemporary debate over whether knowing how involves propositional knowledge. On the one hand, some theorists argue that expert skilful coping (as opposed to novice behaviour) is guided by the situation alone (e.g. Dreyfus, 'Merleau-Ponty and Recent Cognitive Sciences'). While others argue that expert behaviour (as opposed to mere motor acuity) must utilize the knowledge of facts (e.g. Stanley and Krakauer, 'Motor Skill Depends on Knowledge of Facts'). On my reading of Ryle, knowledge of facts can come in handy, especially in situations of learning. For instance, the scout learning to read a map may tell herself, 'a blue line means a river is there'. She uses this proposition to modify her bodily behaviour, quite literally, as she figures out where to go, in this new territory. But this does not mean that knowing how must involve propositional knowledge on Ryle's account. What matters is whether the action has the three characteristics of intelligent performances. Wither the absence or presence of propositions misses the point. Novelty, for one, is paramount. If there are no new challenges that promise new solutions, then no amount of situational attunement (*pace* Dreyfus) or propositional knowledge (*pace* Stanley and Krakauer) produces practical intelligence.

have noted various similarities between *knowing how* and *learning how* in Ryle's work.[13] That likeness goes even deeper, I believe. At the level of prose, Ryle frequently substituted the terms 'knowing' and 'learning' for one another, for example, as when he wrote 'there are certain parallelisms between knowing how and knowing that, as well as certain divergences. We speak of learning how to play an instrument as well as of learning that something is the case' (*The Concept of Mind* 28). Far from being instances of linguistic sloppiness (which would be highly uncharacteristic of Ryle), the interchangeability of the terms appears to be intentional. This is because, on Ryle's account, learning *can* (and often must) involve progressive self-modification in novel situations. When it does, learning how rises to the level of knowing how. To repurpose a quotation from earlier, 'it is of the essence of intelligent practices that one performance is modified by its predecessors. *The agent is still learning'* (*The Concept of Mind*, 42, *emphasis added;* see also *The Concept of Mind*, 59, 129, 147, 231; 'Thinking and Self-Teaching' 217, 220; *On Thinking* 63, 67–8).

This overlap has the counterintuitive result that some seemingly 'inexpert' behaviours will be *included* in the class of practical intelligence, if they involve progressive self-modification in the face of novel situations (no matter how 'novice' they seem to the casual observer). When a student driver deploys her existing competences within an unfamiliar situation – street parking – and finds an imperfect match between her abilities and the challenge at hand, she may well take a risk, step outside of her comfort zone, and try to parallel park. Even if she fails tremendously, she may exhibit the key traits of knowing how. In which case we should grant her, and the other rookies who are learning how to do things *in the appropriate style*, the honorific of practical intelligence.

And the opposite is true, too. Some seemingly 'expert' behaviours will be *excluded* from the class of practical intelligence, if they take place in the absence of progressive self-modification in novel situations. That is, familiar operations in familiar situations may not count as exhibiting practical knowledge (no matter how 'masterful' they appear from the outside).[14] The concert pianist banging out yet another flawless performance of a popular piece on her endless world tour may not manifest practical knowledge. If the virtuoso fails to find and try *something new* in her situation – a piano with unexpectedly stiff action, some newfound humour in the melody, a more sophisticated audience to impress, a different emotion to express – then she misses an

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[13]Bäckström and Gustafsson, in 'Skill, Drill, and Intelligent Performance', also find significant overlap between knowing how and learning how in Ryle's work.

[14]On some interpretations of Ryle, the execution of blind habits can manifest intelligence, so long as the agent has the requisite disposition (e.g. Kremer, 'A Capacity to Get Things Right'; Löwenstein, *Know-How as Competence*; Elzinga, 'Self-Regulation and Knowledge How'). I read Ryle as suggesting that the capacity for progressive self-modification cannot be exercised in the absence of newness. Thus, blind habits, which can only be exercised *sans* novelty, are not intelligent.

opportunity to exercise her exceptional skill. To be clear, the people we commonly call 'experts' do things very well. Practical intelligence, as defined, correctly sorts the masters from the hacks and fakes. But on Ryle's view, practical knowledge is not something experts always exhibit *whenever* they demonstrate their respective talents. Their performances might be drilled *or* skilled. Which one depends on the complex of conditions under which their bodily behaviours are exercised – *the total manner*.

Allow me put it another way, with one last example. My toddler exhibits practical knowledge when brushing her teeth because she is still learning, self-regulating, adjusting and improving in a partly novel situation, while I am merely executing a drilled routine when I stand in front of the mirror to brush up for the umpteenth time. In those moments, the child covered in toothpaste determined to brush her newly discovered molars *knows how* to brush her teeth, and the adult who can brush, floss, and rinse without paying heed does not – a paradoxical, but charming, consequence.

2. Conclusion

In this article, I presented Ryle's rejection of the Official Doctrine, and offered in its stead his innovative idea of mental-conducts, or bodily behaviours framed by manners. This is Ryle's adverbialism. I discussed his descriptions of situations in which there appears to be a mismatch between public behaviour and private feeling, his views on the metaphysical commitments that emerge from our linguistic practices, and his desire to restate certain expressions to better fit his ontology. I also offered a reading of practical knowledge – what can be summed up as progressive self-modification in novel situations. If the preceding presentation is correct, then Ryle's adverbialism marks a genuine shift in what constitutes an action, and which actions ought to be considered intelligent.

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