7

GILBERT RYLE ON SKILL AS KNOWLEDGE-HOW*

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7.1 Introduction

Gilbert Ryle's thought about skill is tied to his famous distinction between knowledge-how and knowledge-that; indeed, as we will see, skill is the paradigm form of knowledge-how for Ryle. His basic view of skill, present in his first writings on knowledge-how (Ryle 1940, 1945, 1949), continued to develop in later work, devoted primarily to the nature of thinking. He modeled problem-solving thought on the “self-teaching” in which one might engage to develop or acquire a skill, and repeatedly returned to the topics of skill, learning, and education, in such essays as “Teaching and Training,” “Thinking and Self-Teaching,” and “Improvisation” (Ryle 1967, 1972, 1976). These writings unfold a picture of skill as a distinctive form of knowledge, inculcated through a distinctive form of teaching, “training.” Ryle's thought on skill, and how it is taught and learned, reflect and develop out of his experiences as a teacher of philosophy, rowing coach, and trainer of anti-aircraft gunners, and I will draw on these examples in developing his view in detail. 1 I begin, however, by sketching the background to this discussion, in Ryle’s arguments for his knowledge-how/knowledge-that distinction.

7.2 Knowing how and knowing that, “intellectualism,” and “practicalism”

Ryle sharply distinguished knowledge-how (to do something) and knowledge-that (something is true). Confusing these forms of knowledge constitutes a category mistake, and attempts to explain one in terms of the other must end in absurdity (Ryle 1945, 1949). Recently, however, Jason Stanley and Timothy Williamson (Stanley and Williamson 2001; Stanley 2011) have defended “intellectualism,” the view that knowledge-how is a species of knowledge-that; knowing how to V is knowing that [W is a way that you yourself can V], for some “way” W with which you are acquainted (Stanley 2011: 122). Carlotta Pavese has modified, elaborated, and defended this position in recent work (Pavese 2015, 2017a, 2017b). Stephen Hetherington takes the opposite, “practicalist” position, that knowledge-that is a species of knowledge-how; knowing that p is knowing how “to manifest various accurate representations of p” (Hetherington 2011: 42).
Ryle’s insights into the nature of skill should interest all parties in this dispute; but Ryle’s reasons for his distinction shed light on his own position. He offered two kinds of support: infinite regress arguments, and arguments turning on the “gradability” of knowledge-how.

7.3 The regress

Ryle’s famous regress targets “intellectualists,” who equate intelligence with intellectual activity, positing that “practical activities merit their titles ‘intelligent’, ‘clever’, and the rest only because they are accompanied by … internal acts of considering propositions” (Ryle 1945: 222). The regress aims to reduce this “intellectualist legend” to absurdity, thereby revealing the need to distinguish knowledge-how from knowledge-that. Perhaps the best formulation of Ryle’s argument goes:

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.

Ryle 1949: 19

Ryle highlights two “salient points at which this regress could arise”: the selection of “the one maxim that is appropriate rather than any of the thousands which are not,” and its application “to the particular situation which my action is to meet.” Each of these can be intelligent – or not (Ryle 1949: 19–20; Löwenstein 2017: 276–80; Small 2017: 62–3). Although this argument does not mention knowledge, Ryle concludes: “‘Intelligent’ cannot be defined in terms of ‘intellectual’ or ‘knowing how’ in terms of ‘knowing that’” (Ryle 1949: 20).

How does this regress about intelligence support a distinction about knowledge? It is illuminating to see the argument as implicitly equivocating between the two forms of knowledge. Two principles, each correct when properly understood, are improperly combined through confusing knowledge-how with knowledge-that. Drawing the distinction saves both principles while avoiding the regress. Thus, the argument shows intellectualism to be absurd: a conceptual muddle with no clear meaning.

The crucial principles are:

(I) An action is intelligent only if it is grounded in knowledge of the agent.
(II) Knowledge can contribute to the intelligence of an action only if it is intelligently selected and applied.

The regress then follows:

Suppose $S$ performs $A$ intelligently.

$A$ was grounded in some knowledge $K$ of $S$. (I)

$K$ was intelligently selected and applied by $S$. (II)

The selection and application of $K$ were grounded in further knowledge $K_1$ and $K_2$. (I)

$K_1$ and $K_2$ were intelligently selected and applied by $S$. (II)

Etc.
However, if in (I) “knowledge” means knowledge-how, while in (II), “knowledge” means knowledge-that, the regress is blocked. The “intellectualist legend” implicitly equates knowledge-how and knowledge-that; the regress depends on this equivocation.

Properly understood, (I) says that knowledge-how accounts for the intelligence of an action. While many intelligent actions involve knowledge-that – we often apply knowledge of truths in deliberation and planning – knowledge-that is insufficient to account for intelligence. Knowledge-how is also needed, at least in the selection and application of the knowledge-that employed. Thus, Ryle recognizes the existence of intellectual knowledge-how, intellectual skills.2

Similarly, (II) says that the agent must select and apply knowledge-that. Stanley objects that this is implausible; Ryle either foists on the intellectualist, or assumes himself, a false picture of knowledge-that as “behaviorally inert.” He thus either perpetrates a straw man argument, or reveals his own inadequate conception of knowledge-that (Stanley 2011: 14, 26).3 In his critique of “intellectualism” Ryle seems to take knowledge-that to involve a “consideration of propositions” that cannot directly influence action. Yet he also asserts that the verb ‘to know’ is “ordinarily used dispositionally” (Ryle 1949: 32). Hence, knowledge is far from being “behaviorally inert.” Perhaps, then, it is Ryle’s intellectualist who holds the opposite conception. If so, however, Stanley can respond that a “reasonable intellectualist” can embrace a dispositional conception of knowledge-that, leaving the selection and application of knowledge to un intellectual “automatic mechanisms” with no need of a further act of “consideration of propositions” (Stanley 2011: 14, 26). This “reasonable intellectualism” seems invulnerable to the regress.4

7.4 Gradability and learning

Hence, we turn to Ryle’s second argument for his distinction. This turns on two closely related “non-parallelisms”: knowledge-how, but not knowledge-that, comes in degrees; and, more fundamentally, they are acquired in different ways. First, “knows how to,” but not “knows that,” is gradable: “we never speak of a person having partial knowledge of a fact or truth … it is proper and normal to speak of a person knowing in part how to do something.” Second, “Learning how or improving in ability is not like learning that or acquiring information. Truths can be imparted, procedures can only be inculcated, and while inculcation is a gradual process, imparting is relatively sudden” (Ryle 1949: 46). This second point is more fundamental than the first, because the difference between learning-how and learning-that explains the facts about gradability. Knowledge-how must come in degrees, because learning-how brings improvement in knowledge-how. There is no parallel phenomenon in learning-that, and so no need for degrees of knowledge-that.5

Ryle’s regress argument aimed to establish a categorial difference between knowledge-how and knowledge-that. Stina Bäckström and Martin Gustafsson argue that we should understand Ryle’s talk of categories in terms of the idea of form, so that the difference between knowledge-how and knowledge-that is formal. They see this as “the key to Ryle’s dispositional analysis of skill and know-how, and to his specific observations that skill and know-how involve understanding, variability, learning, and so on, as essential characteristics” (Bäckström and Gustafsson 2017: 43). This interpretation allows us to see Ryle’s two arguments as internally related. The form of learning that results in each kind of knowledge must reflect the form of that knowledge. Differentiating the two types of learning (the learning argument) and differentiating the two types of knowledge (the regress argument) are then two sides of the same coin. Hence, understanding Ryle’s view of skill will go hand-in-hand with understanding his view on the learning of skill.
7.5 Ryle’s positive conception of knowledge-how

According to Ryle, skill is a kind of knowledge-how, and so a kind of knowledge. Knowledge in general is a disposition, and specifically, a heterogeneous disposition. Unlike a “single-track disposition,” whose manifestations are all of the same type, many different actions manifest knowledge. For example, knowledge that \( p \) is not a disposition to “judge that \( p \),” manifested in an action of “internally re-asserting” \( p \). Rather, knowledge that \( p \) manifests itself in a disparate range of actions and behaviors that can only be exhibited in a list ending “and so on” (Ryle 1949: 32).

Ryle’s term “disposition” can be misleading, however, since this word is reserved nowadays for what he calls “tendencies.” For Ryle these constitute one kind of disposition, corresponding to conditional statements about what the subject would do, if such and such were to occur. But, his “dispositions” include capacities, which correspond to modal statements about what a subject could do, rather than would do. His category of dispositions is the Aristotelian category of hexeis, unified by their general modal character. Ryle places knowledge among capacities, while belief is a tendency: “‘Know’ is a capacity verb … used for signifying that the person described can bring things off, or get things right. ‘Believe’ … is a tendency verb … which does not connote that anything is brought off or got right” (Ryle 1949: 117). 

Knowledge-how to \( V \) is a capacity to “get things right” whose primary manifestation is in \( V \)-ing: “no one would say that I really know how to swim, or that I have swimming-skill, unless when I do it myself I usually succeed” (Ryle 1940: 198). Nonetheless, we cannot identify knowledge-how to \( V \) with the capacity to \( V \) reliably. That would reduce knowledge-how to a single-track disposition, and equate it with mere ability, which may not exhibit intelligence or knowledge at all. Almost all human beings can digest food, but this involves no knowledge-how (Ryle 1953: 311–12). Ryle accepts that, in order for someone to count as knowing how, it is necessary that “they tend to perform … well,” satisfying the “standards” or “criteria” which implicitly govern their activity. This is to be “well-regulated,” but is compatible with a lack of intelligence – the “regulation” might have an external source, as in the performance of a machine or a trained animal. Therefore, Ryle adds that the intelligent knower-how must not only “satisfy criteria” but “apply them.” This is “to regulate one’s actions and not merely to be well-regulated.” To know how, a person must be “ready to detect and correct lapses, to repeat and improve upon successes, to profit from the examples of others and so forth.” Such a person “applies criteria in performing critically, that is, in trying to get things right” (Ryle 1949: 17).

Knowledge-how, then, is a capacity to “get things right,” to meet the criteria for success in an activity in a self-regulated, intelligent fashion. This intelligence lies in a disposition for critical scrutiny and correction of one’s performances, and those of others. The knower-how is always ready to learn and improve – in accordance with the gradability and learning arguments discussed above.

Ryle is an empiricist in the minimal sense of holding that there is an internal relation between knowledge and learning. However, he often asserts the stronger view that all knowledge, and so all skill, is learned. Bäckström and Gustafsson deploy their idea that Ryle’s categorial distinctions have to do with form, to defuse this:

Ryle seems to explain the presence of intelligence in terms of a past history of learning. … Ryle is not making the dubious point that having actually learned the skill is a necessary condition for having the skill.” Instead, he “is identifying … a formal aspect of skillful behavior … something is a skill only insofar as it is situated in a logical space where questions about learning are applicable – where such questions make sense.”

Bäckström and Gustafsson 2017: 47
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This is an attractive idea, but it is difficult to fit to Ryle’s words. He often equated knowledge with something “learned and not forgotten” (Ryle 1949: 110, 1964: 180), and rejected rationalist talk of innate logical capacities since it entails that “we have masteries of things without ever having mastered them, that is, that we know without having learned, and hence are experts, though totally inexperienced” (Ryle 1960: 119). Bäckström and Gustafsson’s suggestion, then, is perhaps best seen as an amendment, not an interpretation, of Ryle. But in either case, we should expect Ryle’s discussions of teaching-how and learning-how to illuminate his view of knowledge-how, and so skill.

7.6 Learning by doing: habits versus intelligent powers, skills versus competences

Knowledge-how is acquired by learning by doing, that is, through practice. Practice, however, comes in two types, “drill” and “training.” Drill, the repeated performance of the same action, “dispenses with intelligence,” yielding “mere habits” (Ryle 1945: 234). The mark of a habit is its “stereotyped,” routine nature: “It is of the essence of merely habitual practices that one performance is a replica of its predecessors” (Ryle 1949: 30). Habitual performance is “well-regulated,” but acquiring habits is only learning to conform to criteria, not to apply them. In contrast, training yields knowledge-how, an “intelligent power.” Training involves, but goes beyond, drill. The trainee is not merely habituated to perform, but learns to do so “thinking what he is doing” – “in the right way … with his head.” This does not entail an intellectualist understanding of knowledge-how; rather, “he becomes a judge of his own performances – he learns what mistakes are and how to avoid them” (Ryle 1945: 234). Trainees develop a critical acuity; they learn from both failures and successes, correcting their approach, adopting newly discovered techniques, and testing and practicing them. “It is of the essence of intelligent practice that one performance is modified by its predecessors. The agent is still learning” (Ryle 1949: 30).

The trainer inculcates a capacity for critical scrutiny through teaching methods and techniques. “It is just here, with the notion of taking care while taking risks, that there enters on the scene the cardinal notion of method.” A method is a shareable, general, learnable way of doing something. Unlike a stereotyped routine, it calls for attention and care, and involves not just patterns of action, but “systems of avoidances … patterns of don’ts” (Ryle 1967: 473). Learning a method is, in part, learning to recognize and avoid types of mistake. A method has a rational structure; the trainee learns not only what to do, and what to avoid, but why. Its application results in “chain-undertakings,” in which “infra-actions” stand in “intentional subordination” to a “programme” – whose verbal formulation would display “how the Lower Order actions are tactically subjected to their Higher Order Undertaking” using logical, modal, and temporal vocabulary (Ryle 1974: 336–7). Consequently,

It is always possible in principle, if not in practice, to explain why he [a knower-how] tends to succeed, that is, to state the reasons for his actions. It is tautology to say that there is a method in his cleverness.

Ryle 1945: 228

Ultimately, the trainee should dispense with the trainer, becoming their own “coach.” They must improvise and innovate, in two senses. First, the methods they have learned are general, requiring adaptation to changing circumstances (Ryle 1976: 123–6). “What distinguishes … actions done with method is … adaptation … to differences… it is the irregularity of some
classes of performances which shows that the author is applying rules” (Ryle 1946: 243). “One main business of a teacher” is to equip students to “think things out for themselves,” going beyond their instructions (Ryle 1967: 466). Second, they will sometimes need to come up with new methods, which they must test experimentally to determine their range of usefulness, and reinforce through practice. The “supreme reward of the teacher” is for their students to go beyond “further applications of the established ways of operating,” advancing their craft by “discovering new methods or procedures” (Ryle 1967: 466).

Ryle referred to the complex mixture of trials, testing, and practice required for this kind of innovation as “experimental learning.” That he thought this form of learning to be essential to acquiring knowledge-how, however, reveals that his argument was not primarily driven by the use of the English expression “knows how to.” His discussions of knowledge-how and learning-how fit well to skills, but not so well to many other things we describe using those words. Eventually, he distinguished skills from “mere competences,” such as “buttoning up buttons, sloping arms, spelling, counting and reckoning” (Ryle 1993a: 60; cf. Ryle 1964: 180). Unlike skills, competences leave “no room for any improvement, talent, or flair,” and do not exhibit gradability: “You can either do it or you cannot.” Like habits, they are acquired through drill, and are routine and stereotyped; yet unlike habits, they are capacities, not tendencies. Skills, in contrast, require “craftsmanship,” which is “more than mere competence.” To possess a skill one must “think for himself – he can’t do it in his sleep.” Skills are marked by critical performance in trying to get things right; there is “room for praise, etc. in terms of the efficient or inefficient exercise of skills” (Ryle 1993a: 60; cf. Ryle 1964: 180). Thus, Ryle’s account of knowledge-how best fits skills.

7.7 The role of the teacher

This account of training in a skill engenders an apparent paradox: learners must be trained to be spontaneous, taught to do “untaught things” (Ryle 1967: 465). How can a teacher equip their students to go beyond their lessons? Ryle offers no general pedagogical principles, since “different arts and crafts require different disciplines” (Ryle 1967: 475). But mere lecturing will not do; the teacher must get the pupil to practice, trying to perform well, perhaps initially by drill in elementary examples. As soon as the student makes the attempt, exhibiting pride in success, envy of others’ successes, embarrassment at failure, and contempt for others’ failures, they are “co-operating, and so self-moving” (Ryle 1967: 472). The teacher then fosters this through criticism of missteps and praise for correct performance. Suitable phrasing sustains the pupil’s interest and response – as Ryle himself coached undergraduate rowers with “a flow of metaphors ranging from reproachful elephants and camels to commendatory swallows” (Mabbott 1986: 224). The pupil begins to make the standards and criteria of the skill their own, imitating their teacher’s critical scrutiny of their performance, becoming a self-teacher.

Still, how does the pupil acquire the ability to improvise, in applying learned techniques or devising new ones? Again, Ryle gives no general advice, instead providing a fascinating list of “the teaching-methods, devices, and dodges by which ordinarily good or very good teachers do actually teach things to us” – all “intended … to get us ourselves to do and to say things of our own (as well as very often to undo and unsay things).” Good teachers: 

- vary style of presentation, context, emphasis and illustrations
- test for the ability to apply a lesson, join it with other lessons, etc.
- teach by showing what to do and what not to do
• ask questions about what we are doing, and further questions about our answers
• impose practice, with variations in situation, speed, and so on
• take us along a familiar path, and “leave us in the lurch” at the end
• exhibit inadequate solutions and ask us to identify their flaws
• give us easier versions of tasks first
• break up complex problems into smaller pieces to solve and join together
• devise analogous problems “to consolidate and limber up our mastery,” when we hit upon a solution.

They practice “the art of setting tasks which the pupils have not yet accomplished but are not any longer incapable of accomplishing” (Ryle 1949: 37). Skilled practitioners are equipped to improvise when confronted with new circumstances; teachers must provide opportunities to develop this flexibility in approach.

7.8 A case study

Early in the Second World War, Ryle helped to train soldiers to shoot down enemy aircraft with machine guns. He wrote to his Oxford colleague Frederick Lindemann – Churchill’s scientific advisor, responsible for, among other things, work on radar and the atomic bomb – to advocate for a new “hosepipe method” of anti-aircraft fire, in which the gun was held against the hip rather than installed in a mounting. He sent Lindemann a typescript outlining the method, and the training of soldiers in it. Text from this typescript later appeared in official military training manuals (The War Office 1942a, 1942b). It is illuminating to read it in the light of Ryle’s thoughts about training and skill.

The typescript outlines in detail the “hosepipe method.” Reasons are given for specific instructions, and trainees are told what to avoid as well as what to do. They are instructed that “attacking aircraft are to be engaged at the narrowest possible angle of approach,” because the easiest target to hit is head on, planes are most vulnerable in the front, the pilot will be distracted by tracer bullets, and the bullet’s penetration will be increased if the plane is flying into it. Similarly, they are told to avoid “going away” shots, because planes are better armored in the rear, and bullets have less force when the plane is moving in the same direction. Thus, trainees are not merely conditioned to shoot, but inducted into a rational structure, a method – they are taught to shoot “with their heads,” “thinking what they are doing.”

While the typescript does not discuss practice, contemporary pamphlets show that training with targets such as hydrogen balloons was common. The typescript emphasizes the importance of selecting personnel “with quick reactions and a natural aptitude,” who “can be trained very quickly.” It also discusses training for aircraft recognition, which was essential if planes were to be engaged before dropping their bombs. For this purpose, the typescript recommends at least one period a day for “practical and not theoretical” instruction, and emphasizes the need for varied methods of instruction, in order to arouse interest in a potentially tedious subject. Techniques mentioned include “the use of Lectures with silhouettes, photographs, playing cards, films, and most important of all, actual observations of planes on the ground and if possible in flight” as well as “Lecturelettes by members of the class.”

In these and other ways, the typescript matches closely Ryle’s account of the teaching of skill. However, one might wonder whether this training left room for that crowning glory of teaching, the discovery of new methods and techniques. Surely, trainees in the anti-aircraft school were to learn the method and apply it, and not try to improvise a different method. Yet the typescript itself advocated a new method, since “the present system laid down for engaging
Hostile Aircraft has not proved satisfactory.” This method resulted from the crucial form of innovation so prized by Ryle; and it had been tested and refined: “The methods outlined in this pamphlet are those taught at the A.A. (L.M.G.) School, Northolt. They have been altered and improved as a result of the Experience gained at the School.”

Ryle’s experience in teaching the skill of anti-aircraft gunnery helped shape his views about knowledge-how and skill. Although the topic was briefly raised in (Ryle 1940), his first serious discussion of it was in (Ryle 1945), completed immediately after the war’s end. Ryle’s wartime experiences are reflected in his use of such examples as sloping arms as a non-skilled competence (Ryle 1945: 30–1, 1993a: 60); marksmanship as a skill (Ryle 1945: 33); and rifle-shooting as a “mundane craft” (Ryle 1972: 65).

7.9 The role of knowledge-that in skill

While Ryle denies that knowledge-how, and so skill, can be reduced to knowledge-that, there is still a place for knowledge-that in skill, in three ways. First, knowledge about the world is essential to success in many skills. For example, if a billiards player

has any skill in getting the balls where he wishes, he must have knowledge, of a rule-of-thumb sort, of the mechanical principles which govern the accelerations and decelerations of the balls. His knowledge how to execute his intentions is not at loggerheads with his knowledge of mechanical laws; it depends on that knowledge.

Ryle 1949: 66

Second, logicians, cookbook writers, and authors of training manuals can describe the methods employed by skilled practitioners. The resulting propositions constitute knowledge-that. They cannot replace the knowledge-how they codify, but they have a “pedagogical” and “disciplinary” use for training beginners (Ryle 1945: 232). Ryle recognized the value of inquiry into ways of doing things, which yields “methodology” rather than “methods” (Ryle 1945: 232). Study of this “technical theory” can be valuable even for more advanced practitioners.

Some people may learn to wrestle well from mere flair, habituation and imitation; but there is much to be learned from the technical theory of wrestling. The same thing is true of medicine and navigation. Rule of thumb is not enough.

Ryle 1966: 103

Nonetheless, Ryle denied that knowledge-how amounts to “implicit” knowledge of theoretical propositions. He called this idea a “not unfashionable shuffle,” and criticized it as unable to explain why explicit affirmation of the same propositions is insufficient for successful performance (Ryle 1945: 227–8).

Third, the need for critical responsiveness entails that skill requires knowledge-that: for the skilled performer to be their own coach, they must know what they are doing, in what circumstances, how well or poorly it is going, and so on. This explains how I can “have knowledge of what I have been non-absent-mindedly doing or feeling” without studying or inspecting my behavior (Ryle 1945: 129). In learning to become my own coach, I learn to attend to what I am doing. This yields propositional knowledge that can inform my critical performance in trying to get things right.
Ryle warns against an intellectualist understanding of attention as a separate act of self-monitoring. He thinks of “attend” adverbially — to attend to one’s knitting is to knit in a particular manner, attentively (Ryle 1949: 130). “To knit attentively” is what Ryle calls a “mongrel categorical-hypothetical” or “semi-dispositional” expression: it reports an occurrence, something that happens, but places it in a larger dispositional pattern — a readiness to react when a stitch is missed or a row is duplicated. The intellectualist goes wrong in thinking of what characterizes the manner of performing one action, in terms of two actions (Ryle 1949: 118).

7.10 Perceptual and intellectual skills

Hence, for Ryle, knowledge-how depends on knowledge-that in important ways. Dependencies also flow in the other direction: we achieve knowledge-that by exercising intellectual and perceptual skills. As we saw, Ryle’s regress argument implies the existence of intellectual skills; but they are much more pervasive. Systematic inquirers employ special skills, in arriving at discoveries, and in presenting them in the form of evidence and argument. “Discovering and establishing are intelligent operations,” so that even “a scientist or an historian … is primarily a knower-how and only secondarily a knower-that” — they know how to achieve knowledge-that (Ryle 1945: 234–5).

The dependency of skill on critical awareness, and so on perceptual knowledge-that, also involves acquired skills, for Ryle. There is an echo of his wartime experience here. The anti-aircraft typescript emphasized the importance of training in aircraft recognition. We can almost hear Ryle remembering this work, when he provides “estimating distances by sight, seeing through camouflage, identifying aircraft by sight and sound, and so on” as examples of perceptual skills (Ryle 1993b: 77). Indeed, we have to learn to recognize even the most ordinary objects by deploying “perception recipes.”

There is no more of an epistemological puzzle involved in describing how infants learn perception recipes than there is in describing how boys learn to bicycle. They learn by practice, and we can specify the sorts of practice that expedite this learning.

Ryle 1949: 209

For example, feeling, in the sense of tactile detection of things or their properties, is a learned perceptual capacity that we can exercise well or poorly, attentively or carelessly. “To be able to feel things, in this sense, is to have got a certain amount of a specific skill or family of skills.” The same is true for the other senses. Success, here, is finding something out — acquiring knowledge-that — “by the exercise of an acquired and perhaps deliberately trained skill” (Ryle 1956: 353). Such skills are involved even when we perceive something with no antecedent task-process of scrutiny. We have a “mastery of the art of recognising on sight the customary occupants of our customary environment”; nonetheless, “the non-occurrence of preliminaries does not entail the non-exercise of a technique” (Ryle 1993b: 77–8).

Ironically, this interdependence of knowledge-how and knowledge-that incurs a threat of regress. If acquiring knowledge-how depends on possessing knowledge-that, and acquiring knowledge-that depends on possessing knowledge-how, how does the acquisition of any knowledge at all get started? Clearly, the answer must be holistic: at some point, we count as possessing both knowledge-how and knowledge-that, when we have accumulated sufficient experience and capacities. But we cannot explore this further here.
7.11 Philosophy as a skill

Historians and scientists are primarily knowers-how, for Ryle; the same is true of philosophers.

The fact that mathematics, philosophy, tactics, scientific method and literary style cannot be imparted but only inculcated reveals that these too are not bodies of information but branches of knowledge-how. They are not sciences but (in the old sense) disciplines.

Ryle 1945: 234–5

In a typescript written shortly after Ryle’s death, Julius Moravcsik offered a sketch of Ryle as a teacher of philosophy:

His method of teaching can be best understood by comparing it to the relation between craftsman and apprentice. What Ryle taught in his tutorials was not theory but activity. For him, philosophy was mainly philosophizing; an art, not a science, to be learned and treasured the way one learns and treasures a craft and the products that genuine craftsmanship can bring into being.

Moravcsik 1977: 3

This assessment is borne out by appreciations that Ryle wrote of two important contemporaries on their passing: Austin and Russell. In each case, Ryle focused not on specific doctrines, but on advances in philosophical method.

In his London Times obituary for Austin,16 Ryle spoke of his colleague’s “vocation,” “not to provide philosophical messages, but to give philosophy a discipline.” Austin

drilled himself and others in the guess-free techniques of determining the specific forces of expressions and the interplays of those forces. To have learnt from Austin just how, for example, negligence differs from inadvertence is to have learnt much more than this; it is to have learnt in part how, in the formulations of very abstract doctrines and questions, to sort out what is girder and what is façade, and more than that, which girders support which parts of the load.

Ryle 1960a: 13

Similarly, in a reflection on Russell’s career delivered to the Aristotelian Society, Ryle praised the ways in which Russell influenced “the very style of our philosophical thinking” (Ryle 1970: 77). He “taught us a new kind of dialectical craftsmanship,” by introducing “aporetic experimentation,” testing his theories by puzzles of his own devising, “the self-applied tests by which philosophical thinking can become a self-correcting undertaking” (Ryle 1970: 79–80). In sum, Russell “taught us not to think his thoughts but how to move in our own philosophical thinking” (Ryle 1970: 84).

Thus, Ryle praised Austin and Russell for teaching philosophers how to think in new ways. Nonetheless, philosophy, like other higher intellectual disciplines, differs from such mental capacities as calculating or translating simple prose. The latter are more like mere competences: we learn them primarily by rote, and they depend on “knacks, drills and techniques.” In philosophizing, as in composing poetry, “the place of drills, wrinkles and prescribable techniques is much smaller,” because “to be successful is to advance beyond all beaten tracks.” Consequently, “the notion of a well-trained philosopher or poet has something ludicrous in it”; and yet, one
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can only learn to philosophize through “practice, stimulation, hard work and flair.” Therefore, “To teach a student to philosophise, one cannot do much save philosophise with him,” in line with Moravcsik’s craftsman-apprentice model (Ryle 1953: 312).

An anecdote from Daniel Dennett shows Ryle conforming to this model. Reminiscing about Ryle’s supervision of his D. Phil. thesis, Dennett recalls that although “I tried to provoke him, with elaborately-prepared and heavily-armed criticisms of his own ideas,” Ryle “would genially agree with all my good points as if I were talking about somebody else, and get us thinking of what repairs and improvements we could together make of what remained.” At the time, Dennett felt that “I hadn’t learned any philosophy from him.” However, just before submitting his final draft, he compared it with an earlier version: “To my astonishment, I could see Ryle’s influence on every page. How did he do it?” (Dennett 2008: 26).

Dennett’s story shows Ryle exemplifying in his own teaching the spirit of the view of skill and education we have extracted from his writings. Moravcsik averred that his “way of construing the teaching of philosophy is one of the important legacies that Ryle left us” (Moravcsik 1977: 9). I hope to have shown that the same is true of his way of construing skill.

Notes

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1 Recent work on Ryle meshes with my reading, including Hornsby (2011), Bäckström and Gustafsson (2017), Kremer (2017b), Löwenstein (2017), Small (2017), Elzinga (2018), Waights Hickman (2019), and Jackson (2020). The account of the “skill analogy” for virtue in Annas (2011) has resonances with Ryle’s account.

2 Weatherson (2017) discusses Ryle’s regress and intellectual skill.

3 Kremer (2017a) offers a historical response to the “straw man” charge.


5 This argument challenges both practicalism and intellectualism. Hetherington defends practicalism, arguing that learning—that can be a gradual process, in which knowledge—that improves (Hetherington 2001: 10–11, 13–16; 2011: 75). Pavese, in contrast, argues that the gradability of knowledge-how is “a rather superficial linguistic phenomenon” (Pavese 2017b: 347) that does not threaten intellectualism.

6 Douskos (2019b) explores the capacity/tendency distinction.


8 While Ryle characterizes habits as “automatic,” he also calls this “a metaphorical title.” Ryle (1949: 95), Fridland (2017), and Löwenstein (2017) argue against Ryle that automaticity is compatible with intelligence. Understanding habit as characterized by its stereotyped, routine nature, rather than automaticity, may save Ryle from this criticism. However, see footnote 11.

9 Kern (2017: 145) credits Ryle with “summarizing descriptions of … logical distinctions between habits and rational capacities.” She develops a characterization of rational capacities as constitutive of the acts in which they are exercised, normative, explanatory, and self-conscious. Ryle’s writings hint at these points: “intelligent powers” involve norms and provide distinctive explanations (Ryle 1949: 118); and their exercise requires “heed,” and so is self-conscious. However, Ryle would reject Kern’s constitutive claim: the “infra-actions” constituting a methodical “chain-undertaking” could occur in other contexts, changing in “tactical subordination” but not intrinsic character (Ryle 1974: 335–6). (I am indebted here to Will Small.)

10 Christos Douskos characterizes habit as “impulsive,” and argues against Ryle that the appearance that habitual action is stereotyped depends on the level of description. However, his account of skill as “spontaneous” reflects Rylean thoughts about attention, care, and critical scrutiny (Douskos 2019a). Ellen Fridland argues that “control” is essential to skill, in similarly Rylean terms: “the controlled part of skilled action … that accounts for the exact, nuanced ways in which a skilled performer modifies, adjusts, revises, and guides her performance,” is “learned through practice” (Fridland 2014: 2731).
11 Löwenstein (2017: 6–7) takes Ryle to use “competence,” “skill,” and “know-how” interchangeably. Ryle’s occasional talk of “skills and competences” might suggest that he is equating the two; but he may also be referring to his later explicit distinction.

12 I paraphrase Ryle’s longer formulations in the list below (Ryle 1972: 68–9).


14 Ryle’s letter and the typescript are F 414/3 and F 414/5 in the Lord Cherwell papers at Nuffield College, Oxford. The letter, dated only “Monday,” must antedate Ryle’s move to military intelligence in September 1941 (Harrison 2009: 68). Ryle certainly approved the anonymous typescript; he contributed to a second pamphlet “on sights,” according to another letter, G 442/56.

15 Ryle himself, as an Oxford rowing coach, owned a manual of rowing technique. Haig-Thompson and Nicholson (1958) was among the books that he donated to Linacre College, Oxford.

16 The obituary is unsigned, but a folder of Ryle materials at the Oxford Philosophy Faculty Library contains a copy. According to Isaiah Berlin, it was “certainly written by Ryle” (Berlin 2009: 720).

References


