

Practical Knowledge: Knowing How To and Knowing That

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Ryle's account of practical knowing is much controverted. The paper seeks to place present disputations in a larger context and draw attention to the connection between Ryle's preoccupations and Aristotle's account of practical reason, practical intelligence, and the way in which human beings enter into the way of being and acting that Aristotle denominates *ethos*. Considering matters in this framework, the author finds inconclusive the arguments that Stanley and Williamson offer for seeing knowing how to as a special case of knowing that. The paper then explores certain implications of the author's position for the philosophy of mind and the grammatical analysis of constructions involving 'know how to'. It ends with a neo-Rylean remark about Aristotelian *nous*.

I

1.

At the beginning of the *Nicomachean Ethics*, Aristotle writes:

If there is some end of the things we do which we desire for its own sake and we value other things by reference to this end — and if we do not value every thing for the sake of some other thing (for at that rate the process would go on to infinity, which would make all desire vain and empty) — then this end must be the good and the chief good. Surely then the knowledge of this end will have a huge bearing upon life itself. With that knowledge, shouldn't we have a much better chance of getting things right? — like archers who have a target to aim at. If so, then an effort is needed to determine, at least in outline, what the practical good is and what sort of knowledge there is of it. (*NE* 1094a18 ff.)

A little later, Aristotle embarks on the search that leads him to declare (*NE* 1098a17–20), still in outline, that the human good consists in activity of the soul in accordance with virtue — or, if there is a plurality of virtues, then in accordance with the best and most complete virtue — in a complete life.¹

¹ 'Virtue' can sound too moralistic for the Greek word *arete*. Some prefer to translate it as 'excellence'. But that is not right either. 'Excel' is too competitive. There is no ideal translation.

Hearing of the emphasis Aristotle places upon the practical usefulness of his enterprise (see *NE* 1103b26–30, 1096b32–1097a4, 1109b34–35), someone might start upon Aristotle’s book in the hope that the said ‘outline’ would gradually be filled out in such a way as to reveal the secret identity of the practical good and to afford an effective prescription of the virtue and life through which he might arrive at *eudaimonia* or happiness. But, if that is the hope, then it must be a disappointment that, soon after the sentences quoted from 1094a18, Aristotle also says (1095b4–5) that nobody who is not *already* practised in good habits — not started long since upon that in which it might have seemed to his new reader that Aristotle himself was going to oversee and direct him — can gain anything from his lectures. Further on in the treatise, and yet more disappointingly perhaps for anyone who had expected something else, it becomes plainer still that the practical end or chief good cannot be further specified in some form of words through which a simply and purely intellectual act or process can impart understanding. According to Aristotle, it is for ethical virtue and ethical formation themselves to oversee our aim and sustain our effective understanding of the chief good:

for virtue makes us aim at the right mark and practical wisdom makes us take the right means. (*NE* 1144a7–9)²

The *Ethics* is not then the individual citizen’s teach-yourself guide to the attainment of the chief good. In so far as the book offers practical hints, this is only in passing. The real usefulness of the great treatise that comprises the *Ethics* and *Politics* taken together is more indirect. It relates primarily and in the first instance to the work of the Aristotelian statesman who must see to it that the polis maintains itself as a *koinonia* or commonwealth in which participants or citizens cultivate the ethical and intellectual virtues in the best and happiest life of which they are capable.³ To fulfil this role, however, the statesman will need to understand human praxis and human fulfilment not only

On seeing the English word ‘virtue’, let the reader hear also the Greek word *arete* and recognize therewith a problem that reaches beyond translation — and beyond the immediate concerns of the present work.

² Translation of W. D. Ross (1925). In Wiggins 1975–6, I suggested that ‘means’ is too restrictive a translation for *pros to telos* and *pros ton skopon* in Aristotle’s texts. ‘That which is towards the end’ must embrace constituents of the end as well as means. That is important. But the rest of what I say here about *NE* 1144a7–9 departs in one respect from my 1975 reading.

³ Compare Wiggins 2004. Is this what Aristotle’s auditors wanted to hear about? Maybe not (least of all perhaps ambitious young men). But on the view I am taking, it is what he wanted to tell them about — what he thought would do them good and do the polity good.

in the ordinary participative mode, and not only on the level of observation or day-to-day reflection about human affairs, but also in speculative mode—or on the level of theory, as we may venture to say.⁴ For an understanding that is historical *and* speculative *and* incipiently systematic will lend strength, certainty, and explanatory force to Aristotle's words when he warns the statesman not to place the wrong kind of trust in the power of the law (cf. *Politics* 1269a20), for instance, or cautions him against supposing that, all by itself, a political constitution can make citizens just or happy. What the *Ethics* and the *Politics* offer conjointly for the use of the statesman is a general theory of the humanly practical—nothing less than the thing C. S. Peirce calls a science of aims⁵—along with the best considered advice that Aristotle can furnish to the statesman for the attainment and preservation of the human good.

2.

If it is for ethical virtue (rather than a simply or purely intellectual virtue of practical wisdom) to oversee our aim and sustain our understanding of the chief good, then why cannot ethical virtue do all of that by refining and extending the simply propositional content of the identity 'eudaimonia is activity of soul in accordance with virtue in a complete life'? Well, in the first place, ethical virtue is not that kind of disposition (*NE* 1103a4–7, 1139a1 ff.). A further difficulty for any such prospect—whether entertained on behalf of ethical virtue or on behalf of virtue and *phronesis* together—arises from Aristotle's contention that the matter of the practical is by its nature limitless or indefinite. (See 1130b18–19 conjoined with 1137b29–32.) There is no question of a simply propositional complete elucidation or precisification of the Aristotelian norm of being and doing.⁶ It is true that over and over again, in this, that or the other circumstance, ethical

⁴ Aristotle himself could not in any would-be Aristotelian sense of theory put it so, because strict necessity, strict *episteme*, and Aristotelian demonstration or *apodeixis* are foreign to this subject matter. But we ourselves may find it natural and reasonable to speak of Aristotle looking for a theory, in our sense of 'theory'—not loosely, though, or in the way in which people speak of 'moral theory', but in recognition of the quasi-scientific way in which Aristotle looks for an empirical account of politics and a systematic typology of forms of government. There are further remarks about the relation between the theory of the practical and agential knowledge in Sect. 12 below.

⁵ For the claim that 'Ethics is the philosophy/science of aims', see, for instance, Peirce 1931–58, Vol. IV, pp. 240, 243. Peirce does not mean by this a science of means to ends elsewhere determined. It is a science of things to aim for.

⁶ Compare further *NE* 1104a1–9, quoted in Sect. 6 below.

virtue—and the ideals, precepts, and aspirations which it combines with practical wisdom to keep in being—can prompt us to true determinations of the response we should make there. But determinations such as these come about *despite* the limitlessness of the matter of the practical. Indeed the aims and ideals in question (such as we find implicit in and presupposed to the precepts of *Ethics*, Bk. IX, Chs 2–3) are themselves the *practical expression* of ethical virtue, which supplies in a context that which cannot be supplied in advance of that context.

It might be suggested that, in theory, the collectivity of *all* such judgements past, present, and future arrived at in their contexts by persons of good sense and understanding would embody or represent a correct complete conception of the end. But, at the point of action, there is no such completed collectivity. At the point of action, the however virtuous agent's own conception is still in the making. Secondly, even if the completed collectivity of such judgements might ('in extension', so to say) represent a correct conception of the end, the completed collectivity could scarcely become the simply propositional source or principle that *generates* these judgements-in-context.⁷ It is not the sort of thing to upstage or replace the agent's habituation or initiation into a particular way of being. It is rather that habituation or initiation which enables us to recruit practical wisdom/*phronesis* into the business of finding our responses to the miscellaneous particular conjunctions of circumstances in which we find ourselves. (See again *NE* Bk. IX, Ch. 2.) If the subject matter of the practical is indefinite in the way Aristotle claims, and if no finite specification or form of words (not even one deploying all the resources of *deixis* or demonstration) can project the judgements of the practically wise agent reliably and correctly into an open and indefinite future, then there must reside within the grasp that these agents have of the spirit in which they are to act—and there must reside within the grasp they have of the end and of their own way to that end—some component which is inherently and irreducibly practical-cum-agential. If Aristotle does not say this explicitly, yet it is an inescapable consequence of the things that he does say.

⁷ Nor is it by reference to this that reasons are given for such judgements. The *dihoti* (see 1095b7) or reason why for a given judgement-in-context will enlarge suitably and at need upon that context.

3.

If this is right so far, then what can it remain for the Aristotelian philosopher to say at the level of philosophical speculation about the end that ethical virtue fixes or determines? Well, despite the impossibility of finding articulate or full expression for a principle that might generate all and only the said totality of correct practical judgements, there is nothing to prevent a simply speculative theory of the practical from describing the way that is travelled by those who do achieve the practical good. An Aristotelian theory can describe the working and interactions of nature and culture which drive and are driven by the process of habituation through which a human being enters into a distinctive pattern of sensibilities, cares, and concerns. It can describe how ethical virtue/*ethike arete* combines with its other half, namely *phronesis* or practical wisdom, in the effort to mate the good with the possible in a way of being and living that makes real the ideal of activity of soul in accordance with virtue in a complete life. Even if what that ideal consists in or amounts to is imparted to the neophyte only by their participation in doing — even if there is no way of specifying the ideal's full content from arm's length or otherwise than through an engaged agent's showing the particular ways in which that ideal informs the efforts of its adherents to match ends to means and means to ends in the light of the opportunities or exigencies of the situation in which the agent finds him/herself — the presence and power of the end that ethical virtue holds in place can be made less and less mysterious to philosophical speculation.

In that same cause, it will help to illustrate the to and fro between practical *nous*, ethical formation, and the practical end if I translate and paraphrase from *NE* Bk. VI, Ch. 11:⁸

The *nous* <comprehension/intuitive reason/intelligence> that is involved in a train of thought by which one can reach a practical conclusion grasps the particular and contingent circumstance that figures in the minor premiss of a practical syllogism. <Such a premiss might say, for instance, 'unless we attack the enemy before they bring up reinforcements, they will destroy the city', thus recording a perceived circumstance which bears upon the cares or concerns which ethical virtue will already have imparted to us. On the basis of the perception of that circumstance, practical *nous*

⁸ Warning: I give notice that in this and all subsequent efforts of paraphrase/emphasis/explanation the result will be essentially contestable. For all these efforts W. D. Ross's translation is nevertheless the foundation. Angle brackets mark explanatory insertions. In some cases (as here) there is paraphrase and expansion outside the angle-bracketed insertions as well as within.

summons a major premiss expressive of those cares and concerns—a premiss such as ‘the security of the city is all-important to us’, for instance.> The perceived particular situations to which such minor premisses relate are the starting points for the apprehension of the end <as it appears to us there in this or that circumstance>. <Our capacity to discern the import of circumstances that figure in the minor premiss is the basis for our larger understanding of that by reference to which things have import, namely the way of living and being that is the chief or final end.> For, just as the perception of particular things is the starting point for our apprehension of the universal which we discern in them, so we must expect that <in the practical case too> it is of particulars <particular circumstances> that we have to have perception and appreciation; and *nous* is our capacity for that. (NE 1143b2–5, reading to *katholou* at line 5)

It is in these terms that we may understand the thing Aristotle says a page later (and elsewhere):

Choice will not go aright unless we have practical reason *and* ethical virtue. It is ethical virtue that gives us the end and practical reason that furnishes our understanding of what we are to do towards that end. (NE 1145a4–6; compare 1144a7–9, 1144a20, 1151a19–20)

4.

By what means will the philosophy of the practical explain how anyone can ever embark upon their commitment to what Aristotle calls the chief good? According to Aristotle, a human being has a native endowment of *nous*—the generic capacity which issues in a more particular capacity, improvable no doubt, to see (among other things) the bearing of contingencies upon that which must matter to us—and a native predisposition to be drawn (under any circumstances not too pernicious) into certain virtues or good states of character:

The particular virtues arise in us neither from our given nature simply nor yet in a manner *contrary to* that nature, rather because we are *fitted by nature* to receive them and then drawn into them and perfected in them only by habituation. . . . Where things come to us simply by nature, we start with the potentiality for whatever it is; and then comes the actual activity (as we see with all the five senses); but in the case of the particular virtues, we first embark on them by undertaking the very acts they call for, as also happens in the case of our getting other kinds of know-how. (NE 1103a23–33)

By this same process of habituation or formation we are initiated into the life of a continuing society and come to share in its endeavours,

preoccupations, and pains or pleasures. It is in this way—it is through learning by taking part—that we enter into a conception of the practical end. But if we are to catch on to what we find in human society, we have to join in with that which others do and say.⁹ Not least we have to listen—or as Aristotle puts it:

We have to attend to the undemonstrated sayings and opinions of experienced older people or of people of practical wisdom no less than to demonstrations <which, in this area, are not forthcoming>; for, because experience has given them an eye, they see aright. (*NE* 1143b11–14)

5.

In some such terms I am led not so much into the archaic and particular content of the Aristotelian ethic (that is a topic for another time) as into the quasi-Aristotelian way of conceiving and describing any whole outlook or ethos into which human beings may be drawn. Aristotle speaks of *ethike arete* or ethical virtue in a way which can sound rather specifically (in our sense) ‘moral’ or ‘moralistic’. But the outlook of *ethike arete* as Aristotle conceives it corresponds rather imperfectly to moral virtue as we conceive it. Among outlooks or mentalities other than either of these is the ethos of a profession or a calling or a craft or an art, for instance that of a doctor, nurse, laboratory scientist, fireman, stonemason ...¹⁰ There are indefinitely many others.¹¹ (An ordinary human being will surely be party to several.) Could anything be more important for the philosophy of life, law, organization, education, administration, stewardship, responsibility/responsibleness, care of natural resources ... than the general idea of such a whole outlook, ethos, or mentality? The ethos of the special and singular thing we now call morality is just one such outlook.

The larger scene that opens out at this point is of almost limitless extent. But the thing that chiefly (not exclusively) concerns us here is the shape and the originary possibility of such a thing.

⁹ In response to the kind of interrogation and objection to which his modern friends and interpreters are usually subjected at this point, Aristotle might add to what is said in the text: participating and understanding first, *then* (at need) questioning. On this point, and concerning ethical formation in general, see Lovibond 2002.

¹⁰ Aristotle is almost as impressed by the parallels between virtue and craft as he is by the undoubted differences between them.

¹¹ Consider, for instance, the ecological outlook—a fit inheritor of the cheerful frugality of the 1940s, which was consigned to gradual oblivion after World War Two but may yet make its appeal to reason at some point in the exhaustion of the earth’s resources.

6.

At this point the question arises how the substance or content of any particular ethos or way of living, acting, and being can be fully specified, conveyed, or characterized.

The philosopher unpersuaded by Aristotle may propose a simply propositional way, namely to specify the substance or content of a given ethos by enumerating the prohibitions and prescriptions, requirements and ideals to which those who participate in the given way of living, acting, and being see their choices as answerable.

Putting aside prohibitions, which import special questions,¹² let us consider the positive instructions, prescriptions, requirements, and ideals by which the adherents of a given outlook live their life together. Suppose we enumerate these instructions, prescriptions, etc. Then the first question will be whether we have caught all of them. The second is this. If you try in the interest of generality to transpose the designated instructions, prescriptions, etc. into self-sufficient statements of the form 'It is always right, or just, or prudent, or sensible (etc.), when so-and-so, to do such-and-such act', then the trouble is that, seriously and strictly speaking, the resulting form of words will be false and remain false (open to simply outrageous counterexamples) however lengthy you make the specification of the so-and-so or the such-and-such. This point is no newer than the exchange between Socrates and Cephalus in Book I of Plato's *Republic* (331c). There is an Aristotelian sequel to that exchange at *NE* 1164b32 ff.

You may try to save an injunction by tying it down to one particular situation that is deictically or ostensibly identified. But, if you save it in that way, you sacrifice all the generality attaching to the injunction or principle you began with. You are no longer in the business of characterizing a whole outlook.

In an altogether different way, you can try to save the injunction you are seeking to formulate by leaving it just as it originally stood and adding on to it a *ceteris paribus* clause. (Compare again Aristotle's procedure in *NE* Bk. IX, Ch. 2.) But how is that clause to be understood? How do we determine what it is for 'other things to be equal'?¹³ This is easy for one who is already party to the outlook or mentality that is in question. But in a context where an outlook or mentality is to be redescribed in propositional terms, that answer will only be

¹² There is more about prohibitions in Wiggins 2006: see p. 278; see also pp. 238 ff.

¹³ The question ought to be put more often. But once you ask it, you will find that what you need is precisely the doctrine of Sects 2–3.

available when the redescription is complete. So back to the redescription. On the approach that the propositionalist is trying to develop, how is one to say in what spirit the adherents of the ethos in question act? How do they come to terms with the new circumstances that confront them? In a given context, how do they negotiate within the plurality and complexity of what seem to be unforsakeable concerns? Can one explain all this by adding yet more principles which they are to respect or abide by?¹⁴ If one cannot — because, even if that were the way forward, there would be no end to it — then is there any such thing as giving an explicit account by these means of the whole content of the outlook you set out to characterize?¹⁵

Here, of course, we are only rediscovering Aristotle:

The whole account of matters of conduct must be given in outline and not precisely, just as we said at the very beginning that the accounts we demand must be in accordance with the subject matter; things concerned with conduct and questions of what is good for us have not fixity, any more than things that concern health. The general account being of this nature <neither precise nor complete, that is>, the account of particular cases is yet more lacking in exactness for <in their full particularity> such cases do not fall under any specific technical instruction or precept, but agents themselves must in each case consider what is appropriate to the occasion, as happens also in the art of medicine or of navigation. (NE 1104a1–9)

We are rediscovering this, but we are emphasizing how *central* the importance is of the understanding that agents need to bring to bear if they are to look in the right spirit (as we have been wont to say) for that which is ‘appropriate to the occasion’. This is not a small concluding detail. It lies at the heart of the idea of a mentality, outlook, or ethos. One who participates fully in an ethos or way of being does not need specific instructions. One generates them for oneself.

¹⁴ And can one catch by further overarching or second-level principles the way in which these prescriptions, requirements, etc. *cohere* within the life of adherents?

It would be a mistake to see the points made here as any criticism of the enunciation of ideals, instructions, or principles as such. In their living usefulness such enunciations are made for a class of contexts in full knowledge that outside that context they will hold only for the most part (as Aristotle puts it). Such enunciations give effective expression there and then to a state of being or an outlook. But they do not articulate or purport to articulate its whole content. Understood as they are meant, they will be true or false (or so I claim), but what they say does not have the full generality that is so often ascribed to ‘moral principles’.

¹⁵ Compare Ryle 1945–6, para. 27: ‘As a person who looks much at his spectacles betrays that he has difficulties looking through them, so people who appeal much to principles show that they do not know how to act.’

7.

In this way, modifying Aristotle himself at certain points and arriving provisionally at a negative or, so to say, anti-propositionalist conclusion, is there anything that one can add to that which we have already reported from Aristotle's positive account of that which is involved in entering into a way of living, acting, and being? This much at least. Those who participate fully in such a thing will know to respond both directly and in some specific way to that which presents itself as a duty or obligation, to the plight of a friend (whose need, desert, or predilection the agent will know to discern almost exactly), to the plight of a stranger, or to that which endangers the well-being or prospects or security of those they live or work alongside (in household or family... , in profession, art, *métier*... , in polis, polity, or country...). In a wide range of cases, though not of course in all, an agent will know exactly what to do or where to turn or whom else to call upon for aid or assistance. Even where they have never encountered such a case before, they may be ready to say something quite clear about what is here expected of them.

The Aristotelian theory emphasizes the power of habituation and learning by doing and reminds one how, from a strictly limited exposure to the efforts of those who would draw them in, human beings can get the hang of something and, just by doing that, start to see the point that is internal to what they are beginning to do. From that incomplete beginning they know how to go on *at once conformably and creatively*. Of course, it is a real question how, among the other workings of the mind, the existence of such a capacity of human beings is to be accounted for. But the very first task is not so much to account for as to *portray* the kind of knowing how that we find here.

This is the moment to engage the philosophy of Aristotle with that of Gilbert Ryle and to consider a whole wide assortment of cases or examples of knowing or learning how to, many of them less contestable and complex than that of ethos, yet as helpful (I believe) to that idea as they are to the Rylean conception of practical intelligence.

II

8.

Gilbert Ryle maintained that knowing how [to V] and knowing that [p] were distinct. They represented different aspects or powers of mind.¹⁶ It was a long-standing, deep-seated, intellectualist mistake

to assimilate them, he said. The intellectualist sees everywhere the knowledge, ‘contemplation’, or ‘consideration’ (as Ryle puts it) of true propositions, but according to Ryle, ‘intelligent behaviour is not piloted by the intellectual grasp of true propositions’.¹⁷ Among his critics, some are impressed by the point that there are cases where knowing some ordinary fact appears to be all that is needed in order to put one into a position to do something.¹⁸ Others argue that knowing how to V is always a matter of knowing the way to V, where knowing the way to V is knowing propositionally that such-and-such is that way. Against these and other criticisms, I shall argue that Ryle’s general contention is simply correct.

In what follows, a substantial part of the argument will turn upon examples where the doings, activities, or performances in question (like the doings of the Aristotelian *phronimos*) involve a large and indefinite plurality of considerations or concerns that have to be consulted or drawn upon and kept simultaneously in play. These offer some of the most salient or interesting obstacles to any wholesale reduction of other kinds of knowing to propositional knowing.¹⁹ But what is at stake is something entirely general. Of course, not everything that Ryle would have accounted a ‘doing’ or ‘activity’ or ‘performance’ and which an agent can know how to engage in or execute will exhibit the complexities on which we shall dwell. Many doings are rather straightforward. Others are doings by rote. If someone insists on accounting the knowing how to perform these last as tantamount to simple knowing that, I shall not stand in the way. For such examples will scarcely serve to establish that intelligent behaviour is ‘piloted by the intellectual grasp of true propositions’, after all. Nor can they serve to show that knowing how to is, after all, a special case of knowing that.

¹⁶ See Ryle 1949, Ch. 2, recapitulating Ryle 1945–6.

¹⁷ See Ryle 1949, p. 26. Ian Rumfitt—see his 2011—helped me to see the importance of this sentence.

¹⁸ Cf. White 1982. White makes much of cases like knowing how to light the grill on this cooker, or knowing how to spell ‘silhouette’. But such examples do not fall under the act or activity paradigm that interested Gilbert Ryle. Nor does Ryle need to say that they do, as we shall see in Sect. 11.

¹⁹ By a propositional knowing I shall mean any knowing whose content can be reported faithfully in a complete sentence [‘that ...’] of finite length—whether employing or not employing devices of demonstration or *deixis*—or else reported by a similarly finite *wh*-clause corresponding to some *wh*-question. About the latter case, see Sect. 11 below.

9.

Concerning the denial we have reported from Ryle himself, let us begin with the most obvious point. To say that knowing how to *V* and knowing that *p* represent or manifest different determinable powers of mind is not to say that these powers can always be activated separately. Nor is it to deny that they have manifold relations of interdependence. It is only to say that neither can be resolved into the other and neither can be subsumed by the other.²⁰ If I say that being a baker and being a lifeboat pilot represent distinct competences/occupations/avocations, I do not mean that nobody has both. By the same token we must expect that the cognitive state of a given person at a given time will often instantiate or exemplify distinct (dependent or interdependent) competences or powers.²¹

The point just made is a formal and perfectly general one. To secure it, let us consider examples from another category. Aquatic creatures can be classified as freshwater, as estuarine (at home in brackish water), or as saline. These are distinct and different characteristics. It does not count against their distinctness that some creatures fall under more than one of them. Salmon and eels are so equipped that they fall under all three. Again, being an omnivore and being a scavenger are distinct properties, despite the fact that some animals are both and despite the fact that certain single pieces of behaviour by a given animal may qualify as part of the case for counting that animal as an omnivore or as a scavenger or as both.

10.

On these terms, it becomes evident that Ryle is in a position not merely to allow but even to insist that, in their full distinctness, knowing how to and knowing that need one another. Over and over again, we may be unable to exercise practical knowledge without some relevant piece of propositional knowledge—for example, where the fuse box is located. More interestingly, the improvement of practice often

²⁰ Alan White says that Ryle says that knowing how and knowing that are ‘essentially different’. That is one way of saying what Ryle says, but Ryle’s point can be made without a detour through the ‘essences’ of the powers of the mind or of competences and without giving the impression that we may expect that each power can be exercised in independence of the other. Either that or one must say that it is a part of the ‘essence’ of each that it is involved in the ‘essence’ of the other.

²¹ If you hold to an ontology of states and you believe that states can have sub-states as their parts, you may want to express the point in such terms. But nothing very much depends here on whether you want to subscribe to that view or not.

waits upon technological/scientific/theoretical discovery. Think of dentistry or surgery.

That is one sort of dependence. But there is also a quite different kind of dependence between knowing how to and knowing that, one which runs the other way. A ship's pilot who is retained by the maritime authorities to bring large ships safely to anchor in an awkward or difficult harbour can tell us, on the basis of his competence and experience, that when the wind is from the north and the tide is running out, the best thing to do is to steer straight for such-and-such a church tower until one is well past a certain bend in the channel. Almost anyone can come to possess that propositional knowledge but the information they get in this way will probably rest indispensably upon the experience and practical knowledge of a handful of people with a different kind of knowledge, namely practical or (as I shall suggest we say) agential knowledge. The propositional knowledge is *the stepchild* (if I may borrow Ryle's own metaphor — see his 1945–6, para. 25) of the pilot's practical or agential knowledge.

In something of the same spirit, but in an ethical connection, I would urge that, just as the various branches of the practical are keyed to the internal purposes inherent in this or that craft or skill or art, and these purposes provide what is needed for technical judgements to be true or false, so we can conceive of morality as keyed to our collective understanding of certain internal purposes — namely the unforsakeable human purposes which support and control (however contestably) our understanding of 'must', 'ought', 'needs', 'forbidden', etc.²² Here too we must expect an understanding which is rooted in practice and the ordinary business of living to issue in propositional declarations that can be assessed (by one who grasps properly their sense and hears that sense as presupposing the said purposes) as true or false. At the same time, though, those declarations are the descendants or the descendants of the descendants of the stepchildren (Ryle's metaphor again) of a certain way of being or trying to be, and answerable as such to some successor of that way of being.

For another case of the interdependence of propositional and practical knowledge, consider now land measurement. One speculates that very early on in the efforts of their masters to raise taxes upon the lands about the Nile, ancient Egyptian surveyors discovered that they could pick up a measuring rope, pace out two opposing 3-4-5 triangles from a common side of length 5, and measure the equiangular area

²² Compare Wiggins 2006, pp. 358–9.

thus laid out by multiplying the lengths of the sides. By the time when that discovery was made—made simply practically, if one may imagine it so—it was more than ready to be welcomed into the possession of the very earliest geometers. Evidently though (and here we need not guess any more) it had no sooner entered into their care than discoveries in geometry and trigonometry returned to the realm of the practical to transform the competences of land surveyors, navigators, chart-makers, and map-makers.

Yet one more example. Consider how the practical arts of music and the evolution of the instruments on which it depended led to the discovery of mathematical ratios corresponding to octave, fifth, and fourth. These discoveries drew attention in their turn to a problem at once of practice and of theory, namely that of finding a frequency-ratio for the semitones which would give a euphonious tempering of the musical scale that made every key accessible to every other key. Once solutions were discovered for this problem, the result was a huge enlargement of the practical arts of music, in performance and composition alike.

11.

The ‘stepchild’ phenomenon from which we set out in section 10 (see the second paragraph there) suggests that the linguistic form in which someone’s knowing something is reported by us or by them affords no simple guide to the variety of knowing we are concerned with. We need to build a framework within which, given a case of someone’s knowing something, we can engage simultaneously with the grammatical appearances, with the knowing itself in its context, and with the thing known both at its point of origin and later—engage with all of these together, that is.

In that cause, let us set out from six sentences:

- (1) Alfred knows that Napoleon won the battle of Austerlitz.
- (2) Alfred knows that the fourth letter of the word ‘silhouette’ is aitch.
- (3) Nebamun’s workmen know how to lay out a rectangular plot of land and measure it.
- (4) A commander-in-chief need not know how to manage a wagon or harness a battery-horse, but he must know how to gauge how long a column will take to march a given

distance under various conditions. (Clausewitz 1832, adapted.)

- (5) Starbuck, immensely experienced helmsman though he is, has never previously looked to anchor in harbour H. Under difficult conditions prevailing today, he needs to know (to get local information concerning) how best to approach and what one should steer for once within the sea wall.
- (6) Stubb, being entirely familiar with Woods Hole (Mass.) and aware of all the tidal differences in these environs and the strengths and directions of the currents there prevailing, knows how to enter under sail the Big or Little harbours there.

In case (1) we find simple propositional knowledge, knowledge as uninvolved with the practical as almost any empirical knowledge can be.

In case (2)—or in case (2) as expanded to credit Alfred with the knowledge of which letter one needs in each position to spell the word—one notices that the knowledge in question could equally well have been reported as ‘Alfred knows how to spell “silhouette”’. Would that have been better or worse? Surely worse—if it suggests that spelling itself is a sort of know-how. Writing, which is not the same as spelling, is certainly a know-how or skill, but writing depends on the constant application or deployment of all sorts of non-agential information. *Inter alia*, it applies orthographical information. What (2) surely reports then—like that which the sentence ‘Alfred knows how to spell “silhouette”’ reports²³—is Alfred’s possession of one of the kinds of information that writing draws upon. Alfred knows the answer to the *wh*-question ‘How to spell “silhouette”?’ Better still, he has propositional knowledge of how ‘silhouette’ is spelled. There is no need to attribute an agential knowledge to him specifically of spelling.

In case (3), the practical knowledge in question might perhaps have been reported by saying that those who serve Nebamun know that two opposing 3-4-5 triangles which have their longest side in common form a rectangle. But would that alternative version come closer to characterizing Nebamun’s servants’ knowledge or understanding? Perhaps not. What a master surveyor wants (we are supposing) is to measure ground in the only way he knows or finds satisfactory,

²³ Compare and contrast White 1982, pp. 14–29.

namely by multiplying the sides of an area. It follows that the task in the field is to mark out areas which submit to that method. But in the case of those who serve Nebamun the thing they have been taught is a certain routine. The disadvantage of the proposed alternative is that it elides the practical or agential aspect of their knowledge, suggesting (if not implying) that they have abstracted a formal result from the practical thing they have mastered. The knowledge claim we find in (3) could not be true unless certain formal results held in geometry, but that is not the issue. In case (3) the words ‘know’ and ‘how’ combine (as they figure there) to connote something agential.

For comment upon case (4), I adjoin the comment of Clausewitz: ‘This type of knowledge cannot be forcibly produced by an apparatus of scientific formulas and mechanics: it can only be gained through a talent for judgement, and by the application of judgement to the observation of man and matter’ (1832, Bk. 2, Ch. 2, penultimate section). Or, as Ryle might have said, the commander-in-chief’s conduct has to be piloted, not by the simply intellectual grasp of formulas or principles taught in nineteenth-century military classrooms, but by the intelligent and judicious application of any such principles that are relevant to the problem confronting him, an application depending upon practical-cum-agential understanding. According to (4), a commander-in-chief needs both agential knowledge and experience.

In case (5), the advice Starbuck needs is (*inter alia*) to steer for the church tower (etc.). By report, a non-mariner can come to know that this is what a helmsman must do. But a non-mariner will scarcely arrive thereby at agential knowledge concerning how to bring a ship to anchor in harbour H. For Starbuck, on the other hand, *given all his other experience*, to get this information in his emergency may lead him all the way to some sufficiency of practical or agential knowledge.

Case (6) is at the opposite pole from case (1). The knowledge we have here, dependent though it is on a mass of informational knowing, is nothing if not agential. Just by virtue of having such agential knowledge, Stubb can certainly give out information, reminders, or advice. All this even a non-sailor can come to know—simply by report. But, over and above such propositional knowledge (the step-child, Ryle might say, of what Stubb knows agentially), Stubb has other knowledge too. He knows agentially *when* (under what conditions) to try and *when not* to try to bring a sailing ship into a Woods Hole harbour. He also knows *where*, in his passage thither, to turn or to change direction. He knows *what* to do, what to steer for at each

point, and knows at each point *what else* to do or not to do. I do not deny that, poaching from our treatment of cases (2) and (4), someone may say that for Stubb to know these things is for him to know the answer to various *wh*-questions and then to apply that propositional information. The only trouble with that idea is that this information surely condenses and derives from Stubb's and other experienced sailors' practical/agential knowledge itself. The suggestion seems back to front. Properly though to defuse its charm, the thing we need to see is that, in their however well motivated preoccupation with knowing how, Ryle or his followers have narrowed unduly the scope of the practical/agential.²⁴ They overlook knowing when to ... , knowing where to ... , knowing what to They also overlook plain knowing to ... , as in (say) 'Stubb knew to stay well to the east of the channel'.

Taking our leave of (6), but attending for a moment to a form of agential knowledge that Ryle could have traced back to knowledge how but could never have assimilated to it, let us begin with 'knowing to ... '. The construction may seem to be rare in modern English but, listening for it, I still hear it used in everyday life.²⁵

One who knows at *t* to *V* at *t* is one who makes that direct response to something which the world offers to his perception and which nature, second nature, or habituation and experience invest with a practical significance that demands or suggests or requires such a response (to *V*, that is). One who knows *when* (or *where*) to *V* is one who is ready to act as follows: where *t* is an appropriate time (or *p* is an appropriate point) at which to *V*, s/he knows at *t* or knows at *p* then or there to *V*. One who knows *what to do* at *t* is one ready to act as follows: where *W* is the appropriate thing to do at *t*, s/he knows directly to do *W* at *t*.

Improving on these versions (as will surely be necessary), one could distinguish the episodic and dispositional cases. Let it be clear, though, that neither the episodic nor the dispositional explication need be intended to foreclose upon a distinct embedded/indirect question interpretation. There is simply no reason to try to discredit the idea

²⁴ In truth, this narrowing of scope is imperfectly suited to the wide generality of Ryle's (and Aristotle's) concerns with practical intelligence. Compare Ruffitt 2011 *ad finem*, a passage to which I am especially indebted.

²⁵ The other day the librarian of my college said to me, 'If OLIS [the electronic catalogue] were down, Betina [the assistant librarian] would know to consult the card index.' For a printed text involving the construction, see Hume 1777, Sect. V, Pt. 2, footnote. With *knowing to*, compare *remembering to* and *forgetting to*.

that someone can learn by report where, when, or at what point one is to V or learn by report what one is to do at this or that juncture. Such propositional knowledge is easy (I remark) once someone with experience provides it and explains it. What is harder to achieve is active, practical, or agential knowledge, the non-propositional knowledge the agent's possession of which may serve to explain how that agent was able there and then to do the right thing — do it at the right time or the right place

12.

In the preceding sections, the reader will have noticed how often I have supplemented or supported the term 'practical' by use of the term 'agential'. Why was this necessary? Because, in philosophy, the word 'practical' has created ambiguities of a kind which (so far) the word 'agential' has not. If a philosopher X studies the nature or workings of practical understanding or practical reasoning, X may arrive at certain conclusions about the practical. Having reached these conclusions, X may be tempted to call the result practical philosophy.²⁶ But X's study of the practical need not *itself* be practical. Just as a philosophy of morality may be much more concerned with understanding morality than with seeking directly to promote it, so X's study of the practical may be largely or entirely theoretical or speculative. Even if the theory X puts forward might one day serve in the emendation of the practical intellect, X's study may not itself impart or engender knowledge that has any direct usefulness for an agent. Let us make this point by saying that X's treatise need not supply *agential* knowledge. Let us note too that, even in the case where X's ideas for the emendation of the practical intellect are (so to say) *practicable*, they may not impart immediate agential knowledge. That may require yet further thought.

The complications rehearsed in section 11, so far from undermining Ryle's critique of intellectualism, leave one eager to understand better the powers (the various competences) of the mind that Ryle distinguished. In advance of that effort and innocent of that which I have just proposed on his behalf, here are Ryle's own words:

Philosophers have not done justice to the distinction which is quite familiar to all of us between knowing that something is the case and

²⁶ Just as the philosopher of morality is wont to follow custom and call his work moral philosophy. It is too late to change this, though I have tried. I think that the better name is philosophy of morality. (Witness my 2006.)

knowing how to do things. In their theories of knowledge they concentrate on the discovery of truths or facts, and they either ignore the discovery of ways and methods of doing things or else they try to reduce it to the discovery of facts.... I want to turn the tables and to prove that knowledge-how cannot be defined in terms of knowledge-that and further, that knowledge-how is a concept logically prior to the concept of knowledge-that. I hope to show that a number of notorious cruces and paradoxes remain insoluble if knowing-that is taken as the ideal model of all operations of intelligence. They are resolved if we see that a man's intelligence or stupidity is as directly exhibited in some of his doings as it is in some of his thinking. (Ryle 1945–6, paras 16–17)²⁷

13.

We have insisted in sections 10–11 that a person's knowledge state at a given time can comprise propositional and agential knowings with divers interdependencies. That answers one question. But here is another question: Is it integral to Ryle's overall position that in every back-and-forth of the kinds instanced in sections 9 and 10, the mass of knowledge that agents exercise should be resolvable into bare knowings-how and knowings-that?

A parallel question comes to mind. If someone says, with Hume, that benevolence and self-love give rise to distinct and different motivations, are they committed to think that, for every occasion of someone's doing some act, it must be possible in principle cleanly to apportion the motivation for doing it between the concern for the good of others and the concern for the good of oneself?

Here lie some of the oldest confusions in philosophy, confusions not yet concluded despite Hume's masterly discrimination of the distinct tendencies of benevolence and self-love. To cynics still eager to perpetuate the confusion which spills out here into life itself, I commend especially from the last paragraph of Hume's appendix 'On Self-Love' in the second *Enquiry*:

[W]here is the difficulty in conceiving... with benevolence and friendship... that, from the original frame of our temper, we may feel a desire of another's happiness or good, which, by means of that affection, becomes our own good, and is afterwards pursued, from the combined motives of benevolence and self-enjoyment? (Hume 1777, Appendix II, last paragraph)

²⁷ As regards the claims Ryle enters halfway through the citation, see para. 20 and the use Ryle makes of Lewis Carroll's Tortoise and Achilles paradox. On Carroll's paradox, see Rumfitt 2011. On the role of knowing how in the intellectual context, see Rumfitt and also Hornsby 2011.

In this passage Hume explains why conceiving benevolence and self-love as coeval and distinct forces within the hurly-burly of human motivation does not commit one to say that genuine benevolence (the simple concern for the good of others) has to work within a principle of action from which all wants of the agent himself are rigorously excluded. It did however help Hume to have examples by which to show forth the simpler kinds of benevolence—that of the parent, for instance, who ‘flies to the relief of his child, transported by that natural sympathy which actuates him and which affords no leisure to reflect ...’.²⁸ If Ryle had been challenged to show forth similarly simple cases where knowing how to and knowing that could be winnowed apart, then what would he have said?

Ryle might have begun by claiming that, among the huge variety of things human beings do, there have to be some that they come to do otherwise than on the basis of knowing that such-and-such is the way to do them.²⁹ And here, I think, he might have said that one need look no further than riding a bicycle. The parent lifts the child onto the saddle, persuades her to pedal, but running or walking beside the bicycle holds on to the child as she progresses. Every now and then the parent loosens his grip. In due course, the child realizes that she can dispense with all assistance. By riding her bicycle she learns how to ride it; and having learned how to do that, she knows how to do it. Generalizing from that case, think how relatively few things we could ever learn to do if we had always to start out on every new thing by finding out what the way was to do the thing and then attempting to do it by the application of what we had found out about the way to do it.

14.

Here Ryle will encourage a further thought. In the cases where there is a real reason to say that we do proceed by finding out first what the right way is to do some thing and (then) applying that information, we can only apply that information if we know how to apply it. That may be far from trivial. Are we going to learn this by gathering further propositional knowledge which has itself to be applied?

Another thing Ryle says (1945–6, para. 25) is that contentions such as his own have a tendency to provoke what he called a ‘not unfashionable shuffle’. In cases like that of the child who learned to ride a

²⁸ See Hume 1777, Appendix II; see also Appendix III, second paragraph.

²⁹ Cf. Hornsby 2005, pp. 113–15; also p. 116, n. 17. See also Hornsby 1980, p. 84.

bicycle by pedalling a bicycle, a philosopher tempted to make the intellectualist shuffle may suggest that, even where the child gets no 'explicit' knowledge that such-and-such is the way to do whatever it is, she must be achieving 'implicit' propositional knowledge of it.

What needs to be said about that? Well, first, why say it? Or what does it add?³⁰ Secondly, even where some agent has got herself something that merits the name of explicit or articulate knowledge that such-and-such is the way to do what she does, she still might bungle. (Compare Ryle 1945–6, para. 24.) Indeed, getting and deploying such explicit knowledge might precisely undermine a previously ready and

³⁰ And is this would-be propositional use a good use of the idea of implicit knowledge? Christopher Peacocke insisted that at this point I must consider the implicit-cum-innate knowledge of universal grammar which Chomsky has shown we need to credit to a child if we are to explain the certainty and rapidity with which, despite patchy and partial exposure to speech which may itself be fragmentary or ill-formed, she learns to speak and understand. Do I really want to dispense here with Chomsky's insight into these matters?

I respond as follows. One who sides with Ryle's comment on the 'implicitist shuffle' may safely accept the verifiable substance of Chomsky's contention, yet stipulate nevertheless that, in accepting it, we must revert to a more properly rationalist conception of that which is innate. In the terms used by Leibniz, let us see the child who comes to participate in human speech as manifesting highly specific 'instincts', 'attitudes active or passive', 'preformed dispositions', or 'aptitudes' to react in certain particular ways to the sounds and rhythms of human speech. At the level of imitation and response let us see the child as extrapolating in very specific ways from the patterns that she perceives in the utterances directed to her or that she hears about her. Concerning the innate, see for instance Leibniz 1704, pp. 90, 91, 106, 110—and not least the Preface, where Leibniz says 'ideas and truths are innate in us—as inclinations, dispositions, tendencies or natural potentialities...' (p. 52).

Why prefer to describe things in this way rather than describe the child as having innate implicit knowledge of universal grammar? The advantage of Leibniz's way is that it dispenses entirely with the thought that something can be explained by saying that the child follows (how?) or follows 'sub-personally', or behaves *as if* she were following, a set of entirely universal instructions, or behaves as *if* she were constructing her responses by reference to a universal manual. (A manual not in fact completed or available even to linguists, but never mind that—a manual so abstract, moreover, that it defines a schema for *all* human languages, yet available as if at a glance to the subject, but never mind that either.) Either such an *as if* introduces a new mystery, or it is void of explanatory content, or else it holds a place (I suggest) for a description given according to some better and more believable deployment of the Leibnizian mode of description. Innate ideas and implicit knowledge are important and philosophically indispensable notions, but they are available to intellectualists and anti-intellectualists alike, despite all the differences in their respective conceptions of these things.

The salmon finds its way back to the place where it was spawned. It knows to. On the basis of some innate capacity it responds to the positional and sensory clues it encounters on its return to that place; but in such a context what can it add but mystification to credit the salmon with an implicit knowledge or 'internal representation' of the geography and oceanography of the Atlantic Ocean? How can the idea of implicit knowledge belong here? Surely the real usefulness of this idea is for cases where there is something more explicit which one with implicit knowledge could come to recognize as correct and/or helpful if it were given or shown to him/her.

existing competence. Or will it be part of Ryle's opponents' doctrine of implicitness to add that it is 'best for practical purposes' that the knowledge-that which is in question be not explicit? If so, then how, on the intellectualist view, is it to be explained why that should be so?

15.

Leaving behind the implicitist shuffle and Ryle's comments upon it, we come now to the opponents of Ryle who have provoked the most discussion, namely Jason Stanley and Timothy Williamson.³¹ In professed opposition to Ryle, they parse 'X knows how to V' not on the pattern (which they see as integral to the Rylean position) of verb-phrase + infinitive, but on the scheme of an indirect or 'embedded' question, wherein X is said to know the answer (or an answer) to the direct question: 'How is one to V?' On that basis they advance the general claim that a person's knowing how to V comes down to their knowing of some way *w* that *w* is a way to V and entertaining the proposition that *w* is a way for them to V under a practical mode of presentation. Thus Hannah knows how to ride a bicycle if and only if, for some way *w*, Hannah knows *w* is a way for her to ride a bicycle.

There are three questions to ask about this proposal, of which the first is this. Suppose for a moment that as a result of Stanley and Williamson's efforts, their proposed parsing were seen as no less compulsory for English than it appears for German (see Part III below). Would that help to show that Hannah's competence, her knowing how to ride a bicycle, was 'piloted by [the] intellectual grasp' of the true proposition which conveys the information that Stanley and Williamson credit her with having and acting by? How could it show that Hannah's grasp as they describe it is not rather, as Ryle might have proposed, the 'stepchild' of the know-how itself? Is not the Rylean counter-suggestion precisely strengthened by Stanley and Williamson's own tendency to insist that the proposition in question introduce the way *w* under what they call (without ever quite defining it) 'a practical mode of presentation'?

The second doubt prescind from the first. It concerns other possible formulations of the proposition that identifies some way *w*. (See below.) The third doubt will be whether Stanley and Williamson's approach results in a false assimilation of two different kinds of

³¹ See Stanley and Williamson 2001.

knowledge which appear in the guise of 'knowing how to'? That is a matter we shall return to in Part III below.

Second doubt. In resistance to Stanley and Williamson—and in search of some alternative to the version which provokes the Rylean counter-suggestion—I return to the advice given by the ship's pilot who is retained to bring ships safely to anchor in a difficult harbour. Could some extension or elaboration of the advice that he offers for the special case where the wind is from the north and the tide is ebbing spell out everything that is involved here? Could this elaboration be set out as a practically effective and immediately enactable procedure invoking no know-how that cannot be accounted for as a sort of propositional knowledge?

Before we embrace the idea of such an extension or spelling out, it is worth remembering that the pilot's original advice never purported to be complete or completable—even for the special case where it applies. It was gathered up from the pilot's own know-how, competence, and experience. Its whole usefulness presupposed an existing competence of some kind in any recipient who would deploy it. (See Sect. 11, the discussion of case (5).) The advice neither promised nor even suggested the existence of any drill or pre-specifiable whole procedure for bringing a ship to anchor under those conditions in the way a competent performer would. Where that cannot be assured, how plausible is it that there is a propositional knowable to be had in the form '*w* is the/a way to *V*' or 'this is the way to *V*'? Here, moreover, we find a more general and more important question: Is there any propositional knowable—something not read off the agent's practical know-how itself along the shortcut that Stanley and Williamson resort to—giving a *whole set* of procedures and somehow encapsulating the practicable totality of this pilot's competence or know-how for every situation to which the pilot is equal of ship, cargo, tide, wind, and weather?

16.

To get a better idea of what is at issue, let us have a further example. Think of a small family firm in which the senior partner knows how to ensure that the people who work for the enterprise get on with one another, cooperate, and keep the show on the road. When he retires, there are all sorts of things that he can say to the family member who will succeed him about how he did what he did and what he owed his success to. But he reads these things off his own know-how and experience. The thing that he cannot do is to reduce all the things that he

practically knows into a form of words representing the whole way in which he achieved what he achieved or a complete guide or instruction book for his successor. There is no proposition, no conceivable form of words, that answers to and condenses his way of running the show. Nor is there any way of doing things that he can demonstrate or put on display. When he advises his successor, what he reads off from his experience and know-how furnishes insufficient materials for an 'operating manual' for competent performance by the senior partner. It cannot condense the whole substance of his control of an indefinite spread of possible contingencies.

But now, someone will say, suppose the outgoing partner's advice were expanded in the direction of a full set of instructions or rule-book which an automaton could be specifically programmed to follow. In effect, is not some such set of procedures what the outgoing partner was going by—implicitly of course? But well before any of that came into prospect, I reply, wouldn't a human recipient of the rule-book have to beg to be trained in the interpretation and application of the rule-book? And wouldn't such a recipient beg also to know under what conditions it would be all right to reconsider the commercial strategy that was presupposed to the rule-book—or else to reconsider the whole aim or *raison d'être* for a family business of that kind? For nothing less than that may be expected of a partner who knows how to run a family firm.

Strikingly similarly, should we not expect a good general, one who really knew how to conduct war, to be eager to think afresh and to coax his political masters to think afresh about the larger aims which they had once hoped to achieve by a campaign now progressing poorly or going backwards? Of a military genius we might expect that, even before a shot was fired, he would have shown his political masters the way to think constructively and realistically about what might or might not be achieved by some war they were contemplating—and forced them no less thoroughly to review the alternatives to war. As in the case of running a family business, here too practical thinking involves more than the discovery of means to a pre-specified end. It implies readiness to engage in the constant refinement or reformulation of ends. (Compare also Sect. 7, para. 2.)

17.

At this point Ryle's critics will insist that we are underestimating the resources of demonstration. Cannot the outgoing senior partner say to his successor: 'Well, you were here. Obviously, I can't describe

everything. But you saw what I did and we talked about it. Remind yourself. *That* is the way — that is one way at least — to run things.’ Cannot the ship’s pilot say something similar to his trainee or apprentice?

Such a defence, in so far as it is intended to sustain a campaign against Ryle’s contentions and vindicate the claim that knowing how to is really a sort of knowing that, imports new difficulties.

Does not a demonstration like this, turning upon a ‘that’ whose proper elucidation draws upon the demonstrator’s know-how and depends for its effectiveness on a hearer’s incipient know-how, exceed the limits of any possible explication of any ‘this’ or ‘that’ by which a putative purely propositional knowable could be identified?³² It would not, of course, exceed it if *at every point* the elucidation depended only on knowledge possessed by partner or successor which could be revealed as knowledge that. But such an elucidation would have to leave nothing over which could not be shown to be really and truly some sort of knowledge that. What prospect is there of this?

Suppose that we try to explain how someone was able to do something really rather difficult; and suppose that what made all the difference to their success were things the agent had learned from experience and formation and had got the hang of over a large span of their personal history. It was only because the agent *knew so well how to V* that, under those conditions s/he succeeded in V-ing.³³ Compare and contrast this statement of the explanation with the statement which Stanley and Williamson would be at liberty to offer if they accepted the requirement stated in the last two sentences of the foregoing paragraph: the agent succeeded because, for some *w* that was the best way to V, s/he knew that *w* was the best way to V. Yes (one wants to retort), but, in the first place, was the agent’s selection of this way *w* made by the exercise of purely propositional knowledge — and, if so, what knowledge? (In choosing *w* was the agent exercising knowledge of a proposition of the following form? — *u* is a way to select the right way *w* to V. If so, how was *u* itself selected? Through further

³² Jennifer Hornsby (2011) raises the question whether, in the context of Stanley and Williamson’s theory, the extension of any particular know-how signalled by the ‘token actions’ of demonstration invoked by these authors will ever collect all and only the ways of acting that fall within the ambit of that know-how. Her examples, like mine, suggest a negative answer. Except under the guidance of this know-how itself, the demonstration of particular and specific ways to V cannot serve to demarcate the whole genus V.

³³ Compare Hornsby 1980, p. 84, para. 3.

propositional knowledge? By luck?) In the second place, consider the agent's skill in following this right way *w*. Can this skill of his/hers really have amounted to something about *how well s/he knew that* this way *w* was the best way to V? How will Stanley and Williamson make it plausible that knowing very well (where *w* is the right way to V) that *w* is the way for him/her to V is *equivalent* to knowing very well how to V? The second version surely has a different and closer linkage to success.³⁴

III

18.

Ryle conceived his dissatisfaction with the intellectualist model of intelligence and understanding as a dissatisfaction with an intellectualist fixation upon knowing that. Looking for another heading under which intelligence might be found, he focused upon knowing how—too narrowly perhaps.³⁵ For those who second Ryle's dissatisfaction with intellectualism, there is a temptation—despite that which was pre-saged in section 11 at case (6)—to follow in this fixation upon 'know how to'. There is also a separable but consequential temptation to follow critics of Ryle who suppose that the whole issue about intellectualism turns rather upon the grammar and semantics of 'know how to' than upon any of the other concerns that appear in sections 15,

³⁴ In response, an intellectualist defender may insist that it was *under a practical mode of presentation* that the agent knew the proposition that *w* was the way for him/her to V. This makes all the difference, he may say, and fortifies the propositional version's linkage with success.

One might wonder whether this requirement itself can be glossed or explained otherwise than by ruling, more or less in these words, that one entertains a proposition under a practical mode of presentation just if one entertains it in a way in which it would be entertained by one who knew how to V. And then one might object that, in an elucidation of 'know how to', *practical mode of presentation* ought not to be explained in such circular fashion. But in the present context the real objection is something else. If Stanley and Williamson were to use *these* terms ('way in which it would be entertained by one who knew how to V'), then they would scarcely be *showing* that knowledge how to is really and truly nothing other than knowledge that.

In order to avoid the reiteration of 'know how to', the intellectualist defender may propose that I entertain the proposition that way *w* is a way for me to V under a practical mode of presentation just if I entertain the idea of my V-ing under the aspect of what it would be like for me myself to V or I conceive of what it would be to V from the point of view of an agent who was able to V. But this is too weak a condition to explain how our particular agent succeeded so well in those very difficult circumstances. (Here see also Sect. 21 below, para. 2.)

³⁵ Compare Rumfitt 2011 *ad finem*.

16, and 17 above—concerns not entirely about words or syntax. Both temptations need to be resisted. That is no reason though to despise the question whether for English as it is, and in English as it is, we can align the grammatical and the metaphysical aspects of our subject.

19.

When we confront the English form ‘John knows how to V’, there are three possibilities:

- (1) There is the possibility that ‘how to’ introduces an indirect or embedded question arising from the direct question ‘How to V?’ or ‘How ought one to V?’ or ‘How may one best V?’ This is the possibility to say that if John knows how to V, then John knows an answer to the direct question. In that case, maybe John knows something in the form: to *w* is the/a way to V. Such knowledge may or may not help John into a position to V. For, quite apart from the possibility that he lack strength or fitness, he may not even know how to *w*.
- (2) There is the possibility that the ‘how to’ introduces, with a bare and irreducible infinitive, the act or activity in which John is said to be competent. Even this ascription, which seems different from that made under option (1), need not strictly entail that John is in a position to V. For, since the time when he learned, he may have grown old or been disabled ... , or conditions may have ceased to be at all favourable for V-ing There is a presumption, however, that, if to *w* is the way to V, then John knows how to *w*. Moreover, to the extent that John is able to V, his type (2) knowledge will have in certain cases (the case of intentional doings, for instance) to be part of what constitutes and explains that ability.
- (3) There is the possibility, which I shall favour, that both of the previous construals are available, that they are distinct, and each has its own usefulness and its own purport. I call (3) the bifurcational view. That is my view.

Under possibility (1), Stanley and Williamson try to apply it across the whole board. The archetype for (1) might be the German form ‘Johann weiß, wie man eine Gesellschaft leitet’ (literally, ‘John knows how one runs a company’), where the verb *wissen* is followed by

wie + *man* + the third person indicative. The direct question corresponding to this indirect question is ‘Wie leitet man eine Gesellschaft?’ (that is, ‘How does one run a company?’). Given that English is a Germanic language, the paradigm may seem compulsory. Yet that type of construction is not compulsory in Dutch (or so I am told), and Dutch is no farther from the origins of English than German. (Nor does the propositional form of the question as it is expressed in German guarantee that those who count as knowing *the answer* to the question can spell out their agential knowledge in a form of words which will figure as an embedded sentence governed by *wissen* and in this role report completely that which the knower knows agentially.)

Under possibility (2) we can find its archetype in *umetj* (Russian) plus infinitive; *scire* (Latin) plus infinitive; *sapere* (Italian) plus infinitive; *savoir* (French) plus infinitive; *epistasthai* (Greek) plus infinitive.³⁶ The Latin, Italian, French, and Greek verbs take construction (1) as well. The Russian verb *umetj* demands construction (2). Construction (1) is not available with this verb. This is not a mere linguistic nicety. *Umetj* simply makes no sense there. Even so, *umetj* does not have exactly the bare sense of ‘can’ or ‘be able’. *Um* is the Russian for mind. The thing one may expect is that one who *umetj* to V has the understanding, the practical understanding, that it takes to V.³⁷

All right. *Scire*, *sapere*, *savoir*, *umetj* with the infinitive cohere closely with the philosophical claims I was making on Ryle’s behalf about ‘know how to’. But there is no prospect of modelling all uses of the English ‘know how to’ on the Russian verb *umetj*. For in English we can ask the question ‘How to V?’ If someone poses a question such as ‘How (am I) to borrow money most cheaply?’, then the answer may be given in the form ‘You can borrow money most cheaply from Northampton Building Society’. If that is the answer to the question, then someone can know that. So construction (1) has to be available. We know already, moreover, on the basis of our discussion in section 11, case (6), that numerous questions in the form ‘How to ...?’ are no different from indirect/embedded questions corresponding to *when* (‘When to put one’s house up to sale?’ ‘When did Tim and Bill part company?’) or *where* (‘Where to buy a spare lower bracket for that old

³⁶ See Rumfitt 2003.

³⁷ From the same root, the word *umeletz* means a skilled craftsman, one possessed of some particular know-how or skill and a full understanding of its applications.

Raleigh bicycle?’ ‘Where did you go in Italy?’) or *whom* (‘Whom to ask that question?’ or ‘Whom did she ask to dance the polka with her?’).

So construal (1) is irremovable. It follows that if construal (2) is to be taken seriously, that can only be because the case for construal (2) forms just one part of the case for the bifurcational view (3). On the bifurcational view, we must embrace a dualism of construction and then explain its point. Here again, though, *savoir* points the way. For, apart from its occurrence with the simple infinitive, *savoir* can also introduce the indirect question corresponding to a direct question in *comment* (how). The thing that is reassuring is that the sense that results under this type (1) construal does not appear to be exactly the same.

20.

In deference to the frequency in the literature of swimming examples, let us illustrate the force of the bifurcationist option (3) by reference to the story of Leander, a youth of Abydos who, according to legend, loved Hero. Hero was the beautiful priestess of Aphrodite at Sestos, on the opposite shore of the Hellespont. Leander used at night to swim across to Hero, who directed his course by holding up a lighted torch. One tempestuous night, Leander was drowned. In despair Hero threw herself into the sea.

Leander knew how to swim. So (in French) *il savait nager* and (in Russian) *umel plavatj*. But, over and above being a good enough swimmer, there was another problem about swimming from Abydos to Sestos and doing so by night. Abydos, Leander’s city, lies south of Sestos. In between lies the Hellespont and a current running southward from the Black Sea into the Aegean Sea at a speed of some three knots. Working from the atlas, one sees that the only realistic solution to the problem of the current is for the swimmer to advance north-eastward along the eastern strand of the Hellespont, to set out from much further upstream, and to swim hard in a north-westerly direction across the current as it sweeps him downstream. That must be the advice. But then there is another thing to attend to. In mid-stream, struggling across the current, Leander must know where to swim for and what point to be aiming at. So Hero must hold up a torch or light a lamp at the top of her tower in order to mark her position on the western strand. (On the fateful night of Leander’s last swim, the lamp was snuffed out by the storm.) All this an Abydian must know or arrange if he is to swim to Sestos by night. That must be the way in which Leander, if ever there was such a person, swam it.

It was not enough for him to know how to swim. It was not enough that *il savait nager* or that *umel plavatj*. He had to know all these special, local, or technical things — and he did know them. By knowing them, he knew the answer to the question how to swim *from Abydos to Sestos*. Translating this into French: *il savait comment* (the *comment* corresponding to the English interrogative adverb *how*) *nager d'Abydos à Sestos*.³⁸ Saying it in Russian: *znal* (he knew propositionally) *kak* (how) *plitj* (the determinative form of *plavatj*, to swim) *ot Abydosa do Sestosa*.

If such examples are anything to go by, the possibility begins to appear that we need both uses of 'know how to' and both constructions. There is cause to say that, if only we listen, we shall hear in English the distinction that is marked explicitly in French by the presence or absence of the interrogative adverb *comment* and marked even more clearly in Russian, by virtue of its reserving the verb *umetj* for the case of agential competence or skill and deploying a completely different verb of knowing, *znatj* (a verb cognate with *gnosco* in Latin and with *know* itself), plus the interrogative adverb (namely *kak*) for the indirect/embedded construction. In each of these three languages, if we exploit all of their respective resources, and we are alert to a duality of grammatical construction in English, we can contrive a sort of correspondence between the formal or linguistic facts and the material facts that Ryle wanted to draw to the attention of philosophers.

21.

Before deciding finally between the options (1) and (3), we need one more thought. In the presence of the enlargement of Leander's information concerning the geography, current, and other features of the Hellespont, we can expect an enlargement of his agential knowledge and practical competence. Having digested all the facts and worked out their practical import, Leander had everything else that he needed, over and above being a strong swimmer, in order to swim from Abydos to Sestos. In French and on that basis, it seems we can also say (without, this time, the interrogative adverb *comment*) *il savait nager d'Abydos à Sestos*. In Russian it is certain (I am told), given

³⁸ I do not doubt that, in a context, *il savait comment nager d'Abydos à Sestos* could also imply or suggest an actualized capacity of Leander's to swim all the way to Sestos by doing so in a particular way, e.g. as just described. There is no need to deny this. For compare how 'Casanova knew the way out' almost irresistibly suggests that he did in fact use what he knew in order to escape.

Leander's practical readiness to apply his local information, that we can use the non-propositional verb *umetj* and say *umel* (he knew how to) *plitj/doplitj* (swim/swim right to the end) *ot Abydosa do Sestos*.

What then of the English sentence 'Leander knows how to swim from Abydos to Sestos'? In the light of the semantic distinctions we have signalled in Russian and French, anyone who is susceptible to the arguments which were offered in Part II may decide to recognize, in addition to a type (1) construal, an irreducibly type (2) reading of the English sentence. He will seek to interpret the type (2) construal as saying that specific local knowledge positions Leander to get from Abydos to Sestos by fusing his competence in swimming with his practical first-hand understanding of local conditions. On this bifurcationist view, anyone at all can know what the way is to swim from Abydos to Sestos and almost anyone who can swim—or swim as strongly at sea as Byron could³⁹—can know *what it would be like to do so*. That is the type (1) construal. But, on the no less audible type (2) construal, there is something else that very few people, apart from Leander, know how to do, namely marry strength with local knowledge to get all the way from Abydos to Sestos (contrast Sestos to Abydos) by swimming. This was truly agential knowledge.

22.

There is much more to say for each of these three languages about the force of context and the difference that it may make in a context which tense and which aspect of the verb or verbs in question is employed. The thing that chiefly matters, however, is the way in which new information, properly applied, can enlarge practical competence itself, thus extending the reach of some of the idioms in which such competence is described.

Prescinding now from language and reverting (as Carnap might say) to the material mode, one asks: Does the conclusion we have reached provide yet another example of the way in which essentially practical or agential knowledge and not essentially agential knowledge need one another—and another instance of the same back-and-forth

³⁹ I choose Byron because he was a good swimmer and he was eager to emulate Leander. But when he sought to equal Leander's feat he swam the other way, from the west shore to the east, from Sestos to Abydos, trailing a lieutenant of the Marines. See Byron 1991, pp. 204–5. In other words, he chose the easy half, the return swim, which Leander did not at night but at dawn. Byron and the lieutenant of the Marines knew much better than most swimmers what it must have been like to be a Leander swimming the Hellespont; but Byron never measured up to the true difficulty of Leander's task.

which we found upon the larger scene where the distinct capacities that Ryle distinguishes can collude and conspire to create a whole way of living, acting, and being such as forms the backdrop for an Aristotelian account of practical reason in the realms of ethics and politics?

IV

Readers of Aristotle are schooled to distinguish carefully between *nous* as it works in the articulation of the primitive axioms of thought (NE 1143a36, NE 1143b2), as it figures in his account of the grasp, co-ordination, and refinement of concepts (see *Posterior Analytics* 100b5ff.), and as it figures in practical *nous* (*De Anima* 433a14–16, NE 1143b2–5). But may it not be equally important to speculate for one moment how *nous* might appear if it were seen as the hostage for a generic originary power of the mind whose differentiations were the multiple workings of comprehension or intelligence that *coexist* on equal terms with the grasping or knowing of this or that given proposition, and pre-exist fully reasoned knowledge or *episteme*?⁴⁰

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