

# G. RYLE ON INTELLIGENCE CONCEPTS AND ITS IMPLICATIONS FOR PRACTICAL PURSUITS WITHIN THE CURRICULUM

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## **Abstract**

*Practical pursuits within the curriculum have long suffered low status within educational institutions due to the assumption that practical knowledge or knowing how is somehow set apart from cognitive development and anti-intellectual. This dualistic conception of mind and body is challenged using Ryle's conceptual account of "intelligent performance" which provides a more positive account of knowing how and in the process dispels with an intellectualist account of education that privileges theory over practice, mental skills over physical skills. Since practical pursuits predominantly deal with practical knowledge the educational implications are significant because one's knowledge of how to do something, in most cases, is a legitimate matter of evaluation. Consequently, to take intelligent performance seriously, we need to be able to ascribe know(ing) how to someone, particularly when we appraise their actions.*

**Keywords:** *Ryle, intelligent performance, know(ing) how, practical knowledge, epistemology, assessment*

## **Introduction**

What is of interest to this paper is why practically orientated subjects like physical education, dance, drama, woodwork, metalwork and so on continue to be judged as inferior in comparison to more academic subjects of study. Part of the reason why such assumptions continue to exist is the subtle, yet powerful influence of the "intellectualist legend" that permeates educational thinking and as a result worth revisiting to understand its origins in order to prove that it is false. For instance, generally speaking, "knowing that" is commonly

associated with intellectual operations and conceptions of cognition, whereas, to the layperson “knowing how” is considered to be devoid of any cognition, and performance is just a matter of conditioning or habit. Such a view is problematic in the sense that intelligence as understood in “knowing that” is not equivalent to “knowing how”. Consequently, I think more practically orientated subjects within the curriculum can learn much from Ryle’s conceptual account of “intelligent performance or epithets” for a number of reasons.<sup>1</sup> Firstly, Ryle’s account challenges certain Cartesian assumptions of the intellectualist claim that knowing how is a species of propositional knowledge.<sup>2</sup> Secondly, it dispels with the absurdity of the intellectualist doctrine that tries to treat actions or know how as the same as intellectual (cognitive) operations. I shall argue that the intellectualist legend is false because when I describe a performance as intelligent this does not mean the double process of thinking first and execution second.<sup>3</sup> Although there are many instances in which knowledge of theories, norms and so on can make a significant contribution to knowing how, particularly in various professional and occupational contexts this in no way renders invalid Ryle’s central thesis that knowing how and knowing that are conceptually distinct. Lastly, when intelligence epithets are applied to someone we ascribe an ability to do something, not what they may know in terms of intellectual operations of cognition. The relevance for practical pursuits within the curriculum is significant because we can judge the quality of single actions and abilities and compare one person’s abilities with that of another, or evaluate whether the ability of a person has improved or worsened.<sup>4</sup> Although Ryle does not specifically discuss how every action that requires know how can be evaluated, his views are

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<sup>1</sup> Gilbert Ryle, “Knowing How and Knowing That.” *Proceedings of the Aristotelian Society* 46, (1945): 1-16; and Gilbert Ryle, *The Concept of Mind* (London: Penguin Books Ltd, 1949).

<sup>2</sup> Christopher Winch, “Ryle on Knowing How and the Possibility of Vocational Education,” *Journal of Applied Philosophy* 26, no. 1 (2009): 88-101; and Christopher Winch, “Vocational Education, Knowing How and Intelligence Concepts,” *Journal of Philosophy of Education* 44, no. 4 (2010): 551-566.

<sup>3</sup> Ryle, *The Concept of Mind*.

<sup>4</sup> Winch, *Vocational Education, Knowing How and Intelligence Concepts*.

consistent enough to gain a deeper appreciation of evaluative concepts that apply both to actions and know how that has serious implications for judging performance.

For the purposes of this paper I will be concerned with the critical discussion of two issues: firstly, I draw on Ryle's conceptual account of intelligence concepts or epithets to emphasise that when a person knows how to do something his knowledge is actualised or exercised in what he does in an analogous way that is rational but not truth functional in the same way as propositional knowledge, and; lastly, I outline a normative framework that can be used to appraise actions using both constitutive norms (what makes them action of type X rather than type Y) and evaluative norms (what makes X graceful, efficient and so on) in a contextually relevant way. The implications for practical pursuits within in the curriculum being that the teaching and learning of practical knowledge is more than the mere acquisition of a base line level of competence or ability so that we can say that person A knows how to X. It also involves an initiation into the standards and excellences of the practice in which the performer is engaged in. This is not possible if we do not have the evaluative framework to tell the difference between novice and expert.

**Ryle's positive account of knowing how:** knowing how as a contradistinction to knowing that and understanding intelligent performance of a specific kind

Ryle in his seminal work, *The Concept of Mind* brought these expressions to our attention through an extensive discourse on how to describe people as exercising qualities of mind. Ryle starts out by highlighting the important distinction between being intelligent and possessing knowledge which we tend to speak of and treat as intellectual operations of cognition. He makes it clear that the object of his thesis is to illustrate how there are "many activities which directly display qualities of mind, yet are neither themselves intellectual operations nor effects of intellectual operations" and at the same time correct the

“intellectualist doctrine” which tries to define intelligence in terms of acquiring truths.<sup>5</sup> He goes on to add that “intelligent practice” is not secondary to theory on the contrary theorising is just one practice amongst others. Ryle goes on to state that:

Theorists have been so preoccupied with the task of investigating the nature, the source, and the credentials of the theories that we adopt that they have for the most part ignored the question what it is for someone to know how to perform tasks.<sup>6</sup>

In ordinary life we are more concerned about the proficient operations of practices than with the truths a person may acquire and retain. For instance, we speak of learning how to ride a bike and at the same time learn that something is the case. Part of what it is to know how to perform an operation is that the agent must perform them well in the sense of correctly or successfully against certain standards or satisfy specific criteria. This point is significant as it means that intelligent performance is not just about satisfying some public criteria which a well trained monkey could perform but applies to those individuals who detect and correct mistakes to improve on their performance to get them right. This is further reinforced by Ryle when he states:

This point is commonly expressed in the vernacular by saying that an action exhibits intelligence, if, and only if, the agent is thinking what he is doing while he is doing it, and thinking what he is doing in such a manner that he would not do the action so well if he were not thinking what he is doing.<sup>7</sup>

It follows then that the agent in performing the operation characterised by intelligent performance must be preceded by certain propositions about what can be done and to put into practice what these propositions are, but Ryle cautions his audience that this certainly does

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<sup>5</sup> Ryle, *The Concept of Mind*, 27.

<sup>6</sup> Ibid, 28.

<sup>7</sup> Ibid, 29.

not mean the double operation of considering and then executing. Ryle goes on to criticise the “intellectualist doctrine” as absurd due to the endless regress required to show that an operation must be controlled by a prior intellectual operation because “. . . thinking what I am doing does not connate ‘both thinking what to do and doing it’. . .” in some pattern of interconnected processes but thinking about what I am doing to Ryle is the same as “. . . doing one thing and not two.”<sup>8</sup> Why is it that people are so drawn to the idea of doing and another theorising? According to Ryle, part of the answer he attributes to the dogma of the “ghost in the machine” because doing is an overtly physical act and cannot itself be a mental operation and as a result this has contributed to the mythical bifurcation of “unwitnessable mental causes” and their “witnessable physical effects”.<sup>9</sup>

According to Winch Ryle was concerned with the intellectualist claim that all intentional action is caused by mental events in a non-material medium.<sup>10</sup> To avoid this Ryle argued that knowing how and knowing that should be distinct as a way of avoiding a “vicious regress”. Stanley and Williamson formalise Ryle’s vicious regress argument against the intellectualist claim that knowing how is a species of knowing that with the intent to prove that it is false.<sup>11</sup> They formulate Ryle’s argument as follows:

- (1) If one *F*s, one employs knowledge of how to *F*.
- (2) If one employs knowledge that *p*, one avows the proposition that *p*.
- (3) Knowledge how to *F* is knowledge that  $\phi(F)$ .<sup>12</sup>

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<sup>8</sup> Ibid, 32.

<sup>9</sup> Ibid, 33-34.

<sup>10</sup> Winch, *Ryle on Knowing How and the Possibility of Vocational Education*

<sup>11</sup> Jason Stanley, and Timothy Williamson, “Knowing How,” *Journal of Philosophy* 98, no. 8 (2001): 411-444.

<sup>12</sup> Ibid, 413 ff.

In their ensuing analysis they argue that premise (1) is false because there is a range of *F*s that do not require the employment of knowledge how to *F* such as knowing how to digest food because this is not the kind of action that one knows how to do. Therefore, premise (1) is false unless *F* is restricted to intentional actions. Likewise, premise (2) is false because when one avows *p* this is not necessarily accompanied by distinct actions of contemplating propositions. Thus, premise (2) is also false except when understood in some “deflationary sense of ‘action’ . . .” or non-intentional action such as digesting food.<sup>13</sup> Since premise (2) would be inconsistent with premise (1) it cannot serve as the basis of a regress argument. The central tenet of their critique erroneously mistakes knowing how with ability. In the same way Snowdon argues that capacity (or ability) to *F* is not a necessary condition of knowing how to *F*.<sup>14</sup> He goes on to present five counter examples each based around the notion that person *A* may at one time or another know how to *F*, but may not be able to *F* due to a loss of a key food ingredient, a limb, a speech impediment, a hand tremor or fear to emphasise his point.<sup>15</sup> Although there may be instances in which person *A*’s knowing how to *F* may not have the capacity (or ability) to *F* due to mental or physical impairment Ryle would not deny this, nor would he claim that all actions are appraisable in this way. In addition, even though a person may be able to perform a simple or basic action such as digesting food or breathing, it would seem absurd to describe such actions as being commonly associated with the term knowing how in such a way. Knowing how is considerably more complex than person *A* possessing the physical ability to *F* because it ignores the tightly interwoven connections between action, ability and evaluation. Furthermore, it would be unfair to criticise Ryle for using premises which he knows to be false in order to highlight the inconsistencies of the Cartesian position and so it is important to realise that Ryle was primarily concerned with

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<sup>13</sup> Ibid.

<sup>14</sup> Paul Snowdon, “Knowing How and Knowing That: A Distinction Reconsidered,” *Proceedings of the Aristotelian Society* 104, (2004): 1-29.

<sup>15</sup> Ibid, Cf. 8-9.

describing complex or non-basic actions that were intelligently performed according to certain standards that are particularly apt for appraisal. For instance, “when a person knows how to do things of a certain sort (e.g., make good jokes, conduct battles or behave at funerals), his knowledge is exercised in what he does”.<sup>16</sup> Although it is commonly believed that knowing how to do something is somehow reducible to a set of “knowings-that” such as principles, rules, reasons and so on that govern performance this is not always the case. In Ryle’s words: “intelligent application in practice of principles, reasons, standards, etc., is not a lagatee of the consideration of them in theory; it can and normally does occur without any such consideration.”<sup>17</sup> Consequently, the evaluation of how good someone is at performing an action depends on how well they actually perform the action, rather than on what they may know.<sup>18</sup>

Does this mean that Ryle holds the untenable position of behaviourism, that knowing how to do something exhibits some type of mental operation and thereby the same as intelligence? Certainly one could gain this impression when he describes a person by one or other of the intelligent epithets such as “clever” or “silly”, “prudent” or “rash” imputing in the person the ability to do certain sorts of things and thereby according knowledge or ignorance as a result of his actions.<sup>19</sup> Understandably, this has led to considerable confusion which is evident by White’s comment that “I am not necessarily stupid because I don’t know how to play chess or the cello . . .”.<sup>20</sup> But White’s rejection of Ryle’s account of knowing how neglects to acknowledge that giving an account of how something is done is exhibited in actions and apt for appraisal according to certain standards. Although Ryle at times may

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<sup>16</sup> Ryle, *Knowing How and Knowing That*, 8.

<sup>17</sup> *Ibid*, 11.

<sup>18</sup> Winch, *Ryle on Knowing How and the Possibility of Vocational Education*.

<sup>19</sup> Ryle, *The Concept of Mind*, 26.

<sup>20</sup> Alan White, *The Nature of Knowledge* (Totowa, NJ: Rowan and Littlefield, 1982).

appear to be unclear, he does make it clear that some intelligence performances “are not controlled by any interior acknowledgements of the principles applied in them”.<sup>21</sup> This does not undermine the claim that knowing how may involve knowing that in the case of some kinds of actions. In this case his view is consistent with the claim that there are many different types of actions and that when someone knows how to do something we can evaluate the quality of these actions and abilities, and compare one person’s ability with that of another, or evaluate whether the ability of an individual has improved or deteriorated.<sup>22</sup>

If intelligent performance is to do one thing (not two) and apply certain criteria in the operation of a performance, the question then becomes how we can tell or even characterise that an agent is acting skillfully or with intent and not by accident or good fortune? Ryle responds by arguing that to determine whether the performer was lucky or skilful we need to take into account his or her subsequent record, explanations offered or excuses, plus other information to build a picture of “heterogeneous performances” that could assist in deciding whether the performance was a matter of sheer good luck or due to mastery of a skill. This is further reinforced when he states:

The boxer, the surgeon, the poet and the salesman apply their special criteria in the performance of their special tasks, for they are trying to get things right; and they are appraised as clever, skilful, inspired or shrewd not for the ways in which they consider, if they consider at all, prescriptions for conducting their special performances, but for the ways in which they conduct these performances themselves.

Whether or not the boxer plans his manoeuvres before executing them, his cleverness as a boxer is decided in the light of how he fights. . . . Cleverness at fighting is

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<sup>21</sup> Ryle, *The Concept of Mind*, 31.

<sup>22</sup> Winch, *Vocational Education, Knowing How and Intelligence Concepts*.

exhibited in the giving and parrying of blows, not in the acceptance or rejection of propositions about blows . . . .<sup>23</sup>

Such an example illustrates what is normally classed as intelligent performance and highlights how an agent does not execute some additional intellectual operations. Furthermore, the learning of the simplest tasks requires some form of intellectual capacity that requires the agent to have the ability to understand operations and instructions of a propositional nature. Just as a spectator who does not understand how to play chess also cannot follow the play of others and as a result understanding is part of knowing how of a specific kind. The use of the terms “understanding” and “following” in this context are different exercises of knowing how, which may be executed without having to be performed. Therefore to Ryle, knowing how then is a disposition, but not a one-way disposition like a reflex or habit. It also involves intentional acts of doing, correcting mistakes according to specific kinds of criteria, imaging how to do things correctly, in instructing others, in criticising and appreciating movements that performers make and so on indefinitely.<sup>24</sup>

Wright argues that a failure to recognise that knowing how is an ambiguous concept could be detrimental to a coherent understanding of what actually is practical knowledge, particularly as it relates to physical education.<sup>25</sup> She goes on to add that knowing how which is exhibited in performance is not necessarily referring to just propositional knowledge in the form of knowing what the procedure is because it does not necessarily follow that one can carry out the procedure. For instance, knowing how to bowl off-spin in cricket could be simply explained away in terms of knowing that certain procedural aspects are true, but in

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<sup>23</sup> Ibid, 48.

<sup>24</sup> I am cognisant that Ryle’s work has been criticised for a variety of reasons. Space does not permit a lengthy exploration of these but most of these arguments are quite complex and would detract from what is intended which is to emphasise that no other philosopher since Aristotle has been able to locate mental life within the context of human corporeal and social life which is in complete opposition to philosophers like Plato and Descartes.

<sup>25</sup> Lesley Wright, “Practical knowledge, performance and physical education,” *Quest*, 52, no. 3 (2000): 273-283.

this case it would be a mistake to refer to this verbal account as practical knowledge because it lacks a performative element. It may well be the case that a student comes to a strong theoretical sense of knowing how from learning how to bowl off-spin to the point that they share the same amount of knowledge as the teacher or coach who could explain and teach the technical aspects but what is of interest to practical pursuits like physical education is whether and to what degree of success the student has come to know how according to recognisable standards. In this case a strong theoretical understanding is not a sufficient or even logically necessary condition of good performance because we wouldn't "define a good chef as one who cites Mrs. Beeton's recipes, for these recipes describe how good chefs cook, and anyhow the excellence of a chef is not in his citing but in his cooking."<sup>26</sup> In the case of practical pursuits within the curriculum such knowledge would not be considered necessary for effective performance because the focus shifts towards evaluation in relation to knowing how, particularly complex or non-basic performances relating to specific tasks. The problem for practical pursuits within the curriculum has been how to evaluate the diverse array of circumstances that may differ according to the contextual situation. This issue becomes apparent in intellectualist accounts of knowing how that are reductive and abstracts away from our understanding of knowing how as practical modes of presentation in a contextually relevant way. Although person A may know that X is a way to F it does not follow that person A can use their own judgement and discretion to successfully perform X and F, let alone F-ing well. For example, person A may well know that X is a way to bowl off spin in cricket and demonstrate this in a practical mode in a contextually relevant way but may fail to bowl successfully because they have misjudged the type of wicket, the relevant field placements set by the captain for a specific batsman, failed to react to the batsman and make adjustments accordingly and so on in a game context. In one sense person A knows how to bowl off spin in cricket but there is more to bowling off spin in cricket than knowing that X is

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<sup>26</sup> Ryle, *Knowing How and Knowing That*, 13.

a way to bowl off spin. We need to be able to distinguish between someone knowing the procedure or technique for a way of doing something and has the judgement and discretion to respond to the exigencies of particular contextual situations.

**Implications for practical pursuits within the curriculum:** a normative criterion in which to judge performance

There is an enormous array of circumstances in which educators would like to know more about the possession of a student's practical knowledge or know how, particularly how well they exercise it in certain situations. Ryle in Chapter V tries to take account of this complexity by referring to what he calls "heed concepts" which basically relates to attending to the actions in which they are carried out and which are episodic.<sup>27</sup> He goes on to add by way of example that a soldier who obediently fixes his bayonet ready for battle is acting in a different way from a bird that is migrating to Africa. In this case, the latter is acting from a biological drive, whereas in the former, the soldier's specific actions can be described as intentional or "applying his mind" to it. Winch makes the relevant point that if we are going to judge someone as possessing ability we need to consider the agent's actions based on the following: purpose, the normative structures that define the activity, the means to which it is achieved and the degree of success achieved.<sup>28</sup> This is further elaborated upon with an example of a builder to emphasise his point that Ryle's dispositional account of intelligent performance needs to be enriched to incorporate episodes of heed or in situ judgements because it only offers only a partial explanation of what it means to be an expert practitioner.<sup>29</sup>

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<sup>27</sup> Ryle, *The Concept of Mind*.

<sup>28</sup> Winch, *Vocational Education, Knowing How and Intelligence Concepts*.

<sup>29</sup> Person A is a builder that can build houses in an expert manner. Such an account only reiterates the statement that Person A "can" but sheds no light on his expertise, which to some extent is a result of the ability to make in situ judgments relating to the building of the house.

David Carr has written extensively about the conceptual problems surrounding the nature of human action and knowledge in movement and so his work is particularly important to this discussion surrounding the important of practical pursuits within the curriculum.<sup>30</sup> To Carr the exercise of knowing how is crucially related to personal agency and the rational execution of human purpose and intention that is concerned with something that is mastered as a consequence of the learning and teaching of complex and sophisticated rule governed activities and practices.<sup>31</sup> This does not mean that every intentional human activity in the case of simple or basic actions such as raising an arm or opening ones mouth would be commonly associated with the term knowing how. Normally we associate knowing how with the performance of complex or non-basic human actions that must satisfy certain standards. For example, a beginner to basketball may get a basket at their first attempt from the free-throw line but it may be questionable whether this can be attributed to from knowing how and more from accident or good fortune. In this case, he or she does “know how” in one sense, but as Ryle’s account of intelligent performance outlines, to determine whether the performance was a matter of sheer good luck or due to mastery of a skill requires an historical account of past performances to gain a full picture of “heterogeneous performances”.

The relevance of Carr’s account is significant to practical pursuits because it demonstrates how practical knowledge cannot or should not be explained as a form of propositional knowledge because it would dispense with the performative criteria of practical knowledge which is such a crucial feature. Likewise, it would also be a mistake to assume

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<sup>30</sup> David Carr, “Practical Reasoning and Knowing How,” *Journal of Human Movement Studies*, 4, no. 1 (1978): 3-20; David Carr, “Practical Pursuits and the Curriculum,” *Journal of Philosophy of Education*, 12 (1978): 69-80; David Carr, “The Logic of Knowing How and Ability,” *Mind*, 88 (1979): 394-409; David Carr, “The Language of Action, Ability and Skill: Part I – The Language of Action,” *Journal of Human Movement Studies*, 6 (1980): 75-94; David Carr, “The Language of Action, Ability and Skill: Part II – The Language of Ability and Skill,” *Journal of Human Movement Studies*, 6 (1980): 111-126; David Carr, “On Mastering a Skill,” *Journal of Philosophy of Education*, 15, no. 1 (1981): 87-96; and David Carr, “Knowledge in Practice,” *American Philosophical Quarterly*, 18, no. 1 (1981): 53-61.

<sup>31</sup> David Carr, “The Language of Action, Ability and Skill: Part I – The Language of Action,” *Journal of Human Movement Studies*, 6 (1980): 75-94; and David Carr, “The Language of Action, Ability and Skill: Part II – The Language of Ability and Skill,” *Journal of Human Movement Studies*, 6 (1980): 111-126.

that practical knowledge can be reduced to mere physical ability which would remove the rational features of performing intelligently. It is also noteworthy to mention at this juncture that practical knowledge should not be explained in propositional terms or even an applied theory but can be used in an analogous way that is rational but not truth functional in the same way as propositional knowledge. For instance, John knowing that Canberra is the capital of Australia or  $2 + 2 = 4$  is not the same as John knowing how to ride a bicycle. Theoretical knowledge strives for truth which is supported by reason and confirmed by experience, whereas practical knowledge is primarily concerned with the employment of purposeful actions, performed in a non-rational way which can be confirmed by a reasonable degree of success according to the standards of the activity.

Carr goes on to identify a set of conditions which we can use to describe a person as knowing how to do something or other.<sup>32</sup> A simple commonsense response to any investigation into the nature of knowing how in the strong sense would have to involve a description of knowing how that required the agent in question intending to perform whatever they said they know how to do and have some success in satisfying their intention.<sup>33</sup> This of course would not be enough since we wouldn't normally describe a simple or basic action as knowing how and as a result would need to include performances of non-basic actions of some sophistication and complexity in our explanations of knowing how. So what conditions would justify a claim of an agent as knowing how? According to Carr, the following three conditions need to be met:

A knows how to  $\phi$  only if:

- (1) A may entertain  $\phi$ ing as a purpose
- (2) A is acquainted with a set of practical procedures necessary for successful  $\phi$ ing

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<sup>32</sup> Carr, *Knowledge in Practice*.

<sup>33</sup> Ibid, 58.

(3) A exhibits recognisable success at  $\phi$ ing<sup>34</sup>

By formalising his argument Carr's intention is to demonstrate how there is a logical connection with the three conditionals of knowing that.<sup>35</sup> For instance, knowing that  $p$  presupposes a belief that  $p$ , and likewise an application of knowing how to  $\phi$  normally follows from  $\phi$ ing having been intended as a purpose.<sup>36</sup> Likewise he goes on to add the second suggested condition of knowing how is analogous to the third premise of knowing that. Obviously, there is going to be some differences in making such a claim. For instance, characteristics of knowing how normally involve actions rather than propositions, and to some, actions are physical occurrences and as a result it would be a mistake to regard them as capable of being used in inferential statements. Carr responds to such claims by stating:

Since that which an agent knows how to do is not a proposition but an action, it can be neither true nor false, although a truth value may be assigned to a report of his knowing how to do something. Nevertheless, I believe it possible to view the remaining conditions of knowing that and knowing how . . . as formally analogous.<sup>37</sup>

It is noteworthy to mention at this juncture that Carr's conception of practical reasoning strives to make use of practical inferences as a means to find truth rather than discover it in a world of complex human purposes and as a result he calls on the conceptual term of "satisfactoriness" found in Kenny's work on practical inference as a cogent validating

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<sup>34</sup> Ibid.

<sup>35</sup> Three conditions of knowing *that p*, must include the following:

A knows *that p* only if:

- (1) A believes that  $p$
- (2)  $p$  is true
- (3) A had reasonable grounds for holding that  $p$ .

<sup>36</sup> David Carr, "Knowledge in Practice," *American Philosophical Quarterly*, 18, no. 1 (1981): 53-61.

<sup>37</sup> Ibid, 59.

principle.<sup>38</sup> He acknowledges that coming to know or performing complex tasks is essentially a matter of learning to reason practically just as teaching someone is similarly a matter of practical reasoning and showing how certain ends are logically related to specific means. Carr finishes with a notable analogy to make his point that it would be a profound mistake to assume that the best way to transform an apprentice into a master plumber is through say the teaching of hydraulics because the practical knowledge that the apprentice requires comes from the initiation into and mastery of practical not theoretical knowledge.<sup>39</sup>

The problem with Carr's schema is that a person either has the inferential ability or not to perform something successfully or not. Furthermore, it neglects to ascribe intelligent epithets to performance such as "he played the cover drive with gracefulness and fluidity". In this case, the cricket player may not have the mastery of practical inference but he can play cricket well. Although there are instances in which we assume as an observer that inferential processes are implicit in intentional action it does not always follow that an agent engages in reasoning prior to or even after an action. The idea that non-practical modes of inference underlie practical knowledge needs to be reconsidered because inference will be considerably more complex than what is suggested in Carr's schema, particularly when we take into consideration the sheer diversity of practical pursuits found in the curriculum. Williams makes the relevant point that it is impossible to define exhaustively the nature of knowledge because it is not just the case that we think, act, and so on as separate entities, but all of these aspects are logically interwoven.<sup>40</sup> Consequently, Ryle's dispositional account of know how will need to be altered somewhat to take into consideration actions that are episodic and actions that are accompanied by the possession of systematic propositional knowledge.

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<sup>38</sup> A. J. Kenny, "Practical Inference," *Analysis*, 26, no. 3 (1966): 65-75. The term "satisfactoriness" can best be described as the most satisfactory plan which will best serve our purposes and gratify our desires.

<sup>39</sup> Carr, *Knowledge in Practice*.

<sup>40</sup> Kevin Williams, "Assessment and the Challenge of Scepticism," in *Education, knowledge and truth*, ed. David Carr, (London: Routledge International Studies, 1999), 221-237.

According to Winch dispositional accounts of knowing how only offer a partial explanation of what it is to be an expert practitioner and as a result much more can be gained by judging performance when actions are subject to both constitutive norms (what makes them action of type X rather than type Y) and evaluative norms (what makes X graceful, efficient and so on) in a contextually relevant way.<sup>41</sup> Knowing how to do something, in most cases is to know how to act in such a way that intelligence concepts like “clever” or “silly”, “prudent” or “rash” are applicable to the action and the know how that it expresses.<sup>42</sup> Judging whether a person knows how to do something involves a good deal more than the mere acquisition of procedural knowledge or skill. It also involves episodic accounts of heed that is contextually relevant to its exercise but also in such a way that he or she knows how to act well or expertly.

## **Conclusion**

The advantage of Ryle’s conceptual term “intelligent performance” is that it accommodates descriptions and evaluations of performance which are applicable in practical pursuits within the curriculum. Although Ryle’s account of knowing how survives close examination, it cannot account for a diverse range of practical knowledge and thereby needs to be altered accordingly to take into consideration those instances that knowing that informs knowing how. In saying this I am not contradicting my earlier arguments contravening the intellectualist legend because Ryle does not explicitly deny the importance of systematic knowledge prior to practice in the kinds of judgements a surgeon makes.<sup>43</sup> However, Ryle’s point was to emphasise that the possession of systematic knowledge is not a necessary condition of judgement and action.

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<sup>41</sup> Winch, *Vocational Education, Knowing How and Intelligence Concepts*.

<sup>42</sup> *Ibid*, 563-564.

<sup>43</sup> Ryle, *The Concept of Mind*, Cf. 48-49.

It is important to realise that there are many aspects to practical knowledge which should not be segregated in case we seriously alter our understanding of it. I am in agreement with Wright, who argues that when practical knowledge is viewed holistically it is, “. . . the performance that is all important in assessing whether people have practical knowledge or not . . .” and means more than “can do” and involves aspects such as, “. . . agency, intentionality, and initiation into valued human practices.”<sup>44</sup> Therefore, we cannot and should not rule out certain practical pursuits because they are deemed to have no educational value compared to intellectual or academic pursuits in the curriculum according to some question begging account because such attitudes are prejudicial to theory against practice and basically lack understanding of the complexities of practical knowledge, not to mention an understanding of the nature of theoretical or propositional knowledge and its place in education.

One of the key features of any education is to obtain a level of competence so we can say that person A knows how to do X, but this is not enough because we should also introduce and initiate students into the standards and excellences of that activity.<sup>45</sup> This cannot be done if we do not have available to use the conceptual framework in which to talk generally about the differences between a novice and expert performer in the particular area of activity in which we are concerned about.

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<sup>44</sup> Wright, *Practical knowledge, performance and physical education*, 281.

<sup>45</sup> Winch, *Vocational Education, Knowing How and Intelligence Concepts*.