Knowing what you are doing: Action-demonstratives in unreflective action

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Abstract

Almost everything that we do, we do by doing other things. Even actions we perform without deliberation or conscious planning are composed of ‘smaller’, subsidiary actions. But how should we think of such subsidiary actions? Are they fully-fledged intentional actions (in the sense of things that we do for reasons) in their own right? In this paper I defend an affirmative answer to this question, against a recently influential form of scepticism. Drawing on a distinctive kind of ‘action-demonstrative’ representation, I show that the sceptic’s arguments do not go through.

Anscombe; intentional action; know-how; non-observational knowledge; practical knowledge; skill

1. INTRODUCTION

Almost everything that we do, we do by doing other things. Even actions most of us accomplish without deliberation, such as tying our shoelaces, are composed of ‘smaller’ actions—in this case, movements of our fingers and hands. This paper concerns the status of such so-called ‘subsidiary’ or ‘component’ actions.¹

Why should we care about the status of such actions? As it turns out, the stakes are high. The success and quality of complex actions hinge on the selection and execution of the subsidiary actions that compose them. Even in the humble case of shoelace-tying, your finger movements manifest your knowledge how to tie your shoelaces. In more demanding cases—a cricket player at bat, a mountain biker negotiating difficult terrain, a dancer on the stage—the subsidiary actions composing the agent’s bigger actions manifest precision and sensitivity to the demands of her situation, while often taking place under tight time constraints. Our

¹ Are there any (temporally extended) actions that do not have such structure? Such actions would be teleologically basic, in the sense of Hornsby (1980): things that we do intentionally, but not by doing anything else. The existence such actions is controversial (Thompson 2008; Lavin 2013). If they do exist, they fall outside the scope of the present paper. The notion of teleologically basic action needs to be distinguished from that of actions that we can perform directly, i.e., without deliberation. Such actions certainly exist, and may be in some sense ‘basic’, but typically possess teleological structure (see, e.g., Papineau’s (2015) distinction between ‘basic actions’ and their ‘components’).
question, then, is this: how should we conceive of subsidiary actions, so that they can carry this burden?

One approach would involve taking them to be straightforward intentional actions, in at least one standard philosophical sense of that term: as expressions of our capacity to act for reasons (Anscombe 1957; Davidson 1980). On such a view, the individual movements of your hands and fingers as you are tying your shoelaces are things that you do for a reason—namely, in order to tie your shoelaces.

I think that this approach is both intuitively appealing and theoretically fruitful. Nevertheless, it has also come under sustained attack. According to several authors, the fine-grained structure of our actions—especially of highly skilled actions—is often due to capacities other than our capacity for acting intentionally or for reasons. According to some, the fine-grained structure of skilled action is not rational (Brownstein 2014; Luthra 2015); according to others, subsidiary actions (at least beyond some level of fineness of grain) are not intentional (Blomberg and Brozzo 2017), or perhaps do not even express person-level mentality at all (Dreyfus 2002; 2005; 2007; 2013; Papineau 2015).

In what follows I will argue against this tendency. I do not plan to take on every single argument that has been made for it. Rather, I will focus on one particular line of thought that, I believe, underlies many (perhaps most) of these arguments. Acting for reasons is, in some way, associated with a kind of knowledge of what you are doing; and it is some such epistemic condition that, it is often argued, subsidiary actions violate. Despite its popularity, I think this line of thought fails. On a reasonable construal of the relevant epistemic condition on acting intentionally or for reasons, subsidiary actions can meet it.²

Now, I want to be clear about the motivations of my project. The nature of intentional or rational action is itself very much a matter of debate. So, taking subsidiary actions to be intentional or rational does not by itself settle all possible questions about their nature or the kind of intelligence manifested in them. But getting quick answers to these questions is not the motivation behind this project. The motivation, rather, is a worry that a conception of intentional or rational action that excludes subsidiary actions is liable to be distorted in a certain way. In particular, it is liable to be distorted towards a conception of practical rationality that is objectionably disembodied. As at least some authors have suggested, bringing subsidiary actions into the fold can help correct that mistake.³ I will not take up this argument here, but some of the resources I appeal to below should be useful to this bigger project.

The structure of this paper is as follows. In section 2, I begin to spell out the intuitive connection between acting intentionally and knowing what you are doing, and then move on to explain why such a condition may appear to be violated by subsidiary actions. In section 3,

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² Why focus on just this one argument? So far as I can see, it is the most serious of the common arguments in the area. Consider the alternatives. Some authors draw upon evidence that many relatively low-level characteristics of action are determined by specialised neural mechanisms (e.g., Luthra 2015, 2276-2277). It is hard, however, to see how this is relevant: after all, why can’t our capacity to act for reasons be underpinned by multiple distinct neural mechanisms? Another popular argument concerns the (alleged) detrimental effects of ‘skill-focused’ attention on skilled performance (Dreyfus 2007; Brownstein 2014; Papineau 2015). The evidence for this claim has been questioned (see Montero (2010; 2016) and McIlwain et al. (2015)). Even granting it, however, it is once again hard to see how anything follows about intentionality or rationality, unless we also assume that performance in intentional or rational actions cannot be negatively affected by too much (or the wrong kind of) attention. But why should we assume this? By contrast, the existence of some kind of epistemic condition on intentional action can plausibly be taken as common ground by opposing sides in the debate.

I develop a response to this argument by drawing on what I call action-demonstrative ways of thinking or knowing about one’s own actions. Finally, I close the paper in section 4 by addressing some potential objections to the use of demonstratives in this role.

2. THE TROUBLE WITH UNREFLECTIVE ACTIONS

Let us begin by considering the connection between acting for reasons and knowing what one is doing. The idea that such a connection exists and is fundamental to the study of action is famously associated with Elizabeth Anscombe. Anscombe (1957, sec. 5) defined intentional actions as those ‘to which a certain sense of the question “Why?” applies—namely, the sense in which it is a request for reasons, rather than just causes. Furthermore, she argued, such a request is only legitimate (‘given application’) if the relevant agents possess a distinctive sort of knowledge of their actions (ibid., sec. 6). Such agential knowledge is supposed to be distinctive in two related ways: in being ‘non-observational’ (ibid., sec. 28) and ‘practical’ (ibid., sec 32).

Setting details aside, there are two points to note here. First, Anscombe clearly thinks of intentional actions as exercises of rationality, that is, of our capacity to act for reasons. For ease of exposition, in what follows I will use the term ‘rational actions’, meaning actions that are exercises of our capacity to act for reasons (bearing in mind that this capacity can misfire, so that we act for bad reasons’).

Second, on Anscombe’s view agents necessarily have a distinctive kind of knowledge of their rational actions. This statement is, of course, vague. Much of what follows will involve trying to make it more precise. For now, I just want to note that the claim that rational action is subject to some such epistemic condition commands wide-spread support (e.g., Velleman 1989; 2009; Falvey 2000; Setiya 2007; 2008; Thompson 2008; McDowell 2013). For present purposes, I endorse it without argument. It is this epistemic condition that, allegedly, leads us into trouble. Accordingly, I will refer to the two competing approaches I discuss as ‘cognitivist’ and ‘non-cognitivist’.

The trouble is supposed to be this. We often act unreflectively, that is, without deliberation prior to the act, and without focal attention to the details of action-execution during the act. Nonetheless, unreflective actions are often complex, involving chains of subsidiary or component actions that need to be performed successfully, in the right order, and at the right time. This is true of mundane actions like shoelace-tying, but it is even more dramatically on display in the feats of highly skilled agents, such as elite athletes and performance artists. But, non-cognitivists argue, unreflective agents often—perhaps typically—fail to have the right kind of knowledge of their actions.

The evidence for this claim comes from the failure, on the part of agents, to verbally report on their unreflective actions, and the reasons for them. Brownstein (2014, 555), for instance, quotes several elite athletes—NFL Hall of Famer Walter Payton, golf champion Kimberly Kim, and NBA great Larry Bird—stating that they did not know ‘why’ or ‘how’ they did what they did, or even that they did not realise they had acted until ‘a moment or so later’. Luthra (2015, 2274-2275) similarly draws on agents’ inability to explain how they perform their unreflective actions (focusing on the ‘outfielder problem’ in baseball), while Dreyfus (2013, 35) mentions a chess-master’s inability to articulate reasons for their moves in high-speed chess. Indeed, even highly skilled agents (such as hitters and catchers in professional ball games) are liable to mis-describe relevant details of their actions, such as the direction of their gaze while batting or catching (Brownstein and Michaelson 2016).

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4 Anscombe also recognises the ‘null’ case, of acting for no particular reason at all (1957, sec. 17).
5 Indeed, even critics of Anscombe are typically willing to concede some qualified version of this idea (e.g., Davidson 1980; Paul 2009; Gibbons 2010).
Similar failures have been demonstrated even in cases of extremely simple actions. An example, discussed by Blomberg and Brozzo (2017), comes from a study by Fourneret and Jeannerod (1998) (henceforth, F&J). In this experiment, participants were asked to trace a line away from their body and towards a target using a tablet and a stylus. Although their arms and hands were hidden from view, subjects could observe the line traced by the stylus in a computer monitor, reflected in a stationary mirror. Unbeknownst to the participants, a bias was introduced by the computer, causing the line the subjects were watching (but not the actual hand movement) to deviate from its intended path. The participants were able to compensate for the deviation and hit the target. However, they were subsequently very poor at reporting on what they did: they universally underestimated the magnitude of the deviation, and many even got its direction wrong.\(^6\)

Now, before assessing this argument, we need to address a point of unclarity: which actions does the argument concern? As Brownstein (2014, 556) notes, the agents in question can offer bland descriptions of what they are doing, such as ‘trying to get a first down’, or ‘catching a fly-ball’. Moreover, the same point applies to the agents’ ability to give reasons for their actions: they can still, presumably, say things like ‘getting downs is how you move the ball forward in American football’. Similarly, the participants in the F&J experiment clearly had no trouble reporting that they were trying to trace a line to the target with the stylus. Such descriptions may not be very interesting or illuminating, but the fact remains that they are descriptions of things that the relevant agents are doing, and doing for reasons.\(^7\)

We do better by focusing on the internal structure of unreflective actions—the ‘smaller’ acts that, say, an outfielder performs while catching a fly-ball. These are the things that the agents in question are unable to describe when they are unable to explain their technique, or report how they did what they did. Accordingly, we should read authors such as Brownstein and Luthra to be arguing not that (say) catching a fly-ball is not a rational action, but rather that the subsidiary acts of which it is composed are not. (Papineau’s (2015) version of the argument is very clear on this point.) Catching a fly-ball is something that you do (or attempt to do) for reasons; but the things that you do in doing it are not. Analogously, while tracing a line to the target was something that the agents in the F&J study did for reasons, correcting for the (perceived) deviation was not.

There are certainly things we can learn from the fact that agents can act intelligently and successfully, while apparently being unable to describe how they do so. But, as I will argue in what follows, the conclusion that such acts violate a plausible epistemic condition on rational action should be resisted.

### 3. A RESPONSE: ACTION-DEMONSTRATIVES

The non-cognitivist argument moves from the claim that agents struggle to verbally report on the details of some of their actions, to the conclusion that they lack the right sort of knowledge of those actions. But this move is too quick. It neglects the possibility that what is missing in cases of unreflective action is not the knowledge itself, but rather only the capacity

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\(^6\) This divergence between ‘explicit’ and ‘implicit’ aspects of motor control is widely recognised and studied in this and other similar experimental set-ups. See, e.g., Krakauer et al. (2000), Mazzoni and Krakauer (2006), and Taylor, Krakauer, and Ivry (2014). There is much to say about the interaction between these components, but for present purposes it is enough just to focus on the basic finding.

\(^7\) Brownstein (2014, 556) argues that such descriptions fail to meet various criteria, which he associates with the views of Velleman (2008), Railton (2009), and Annas (2011). It is not my goal to defend any of these views here. Insofar as Brownstein’s underlying concern has to do with avoiding trivialising the epistemic condition on rational action, however, the discussion of section 4 is relevant.
to express it in words. But why assume that the ability to accurately and informatively describe one’s actions is an essential feature of the knowledge we are after?  

The suggestion that the two may come apart is not ad hoc. For one thing, when Anscombe introduces the distinctive type of knowledge of their actions agents are supposed to have, she emphasises that it is practical knowledge, in the sense that it is ‘the cause of what it understands’ (1957, sec. 48). This idea is illustrated by examples such as that of a man directing a building project using his ‘superhuman imagination’ (ibid., sec. 45). Such passages suggest that the characteristic expression of practical knowledge is the action itself, not an ability to describe the action. It is in what one does, rather than in what one says, that practical knowledge is supposed to be manifested.

Furthermore, and setting Anscombe’s own views to the side, we have independent reason to think that knowledge and ability to report can come apart. Consider the much-studied human capacity for visually tracking moving objects (see, e.g., Pylyshyn (2001; 2007)). As many studies have shown, humans are able to visually track multiple moving objects (up to 4 or 5), despite the presence of distractors, changes in appearance, and temporary occlusions (success in tracking is indicated by the ability at the end of a trial to pick out, from among the distractors, the subset of items indicated at the start). Crucially, however, successfully tracking an object does not guarantee that a participant will be able to report virtually anything about it. This includes even basic facts about its location and movements during the trial—facts the agent must in some way have been sensitive to in order to track the object at all (Pylyshyn 2007, 40, 45–46). In this respect, then, the performance of agents in multiple-object tracking (MOT) experiments seems quite similar to their performance in the cases that fuel the non-cognitivist argument.

Consider now the following question: should we say that, while tracking moving objects, agents lack knowledge of where the objects are at any given time? We should not. What the MOT experiments suggest is that our basic capacity for tracking moving visual objects does not involve maintaining an identifying description of them as instantiating any particular set of properties, including location properties. Instead, it involves demonstrative ways of picking out or referring to the objects tracked. Demonstrative reference has been the subject of much debate in the philosophy of mind (for some recent work on the topic, see Jeshion 2010). For present purposes, all we need is the basic idea that such demonstratives make particular objects available to the agent as a target for attention, action or thought, by exploiting ongoing ‘information links’ to those objects (Evans 1982). Crucially, there is no good reason to deny that possessing such a way of referring to a moving object is a way of knowing where the object is, at any given moment. After all, agents can point to the object’s location, if asked; and it is hard to see why this demonstrative judgement of location (‘it’s there!’) should be thought to fall short of knowledge. At the same time, this hypothesis neatly explains why participants in MOT studies are unable to give verbal descriptions of the objects they track.

I suggest that a similar response is not only available, but in fact very plausible, in the case of action as well. In summarising their findings in the experiment described earlier, F&J (1998, 1137) write that ‘subjects seem to be poorly, if at all, aware of the details of their motor performance’. But this is, I suggest, misleading. Rather, agents are aware of the relevant movements of their arms and hands in a demonstrative, rather than description-based...

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8 To be fair, this assumption is shared by some of the views criticised by non-cognitivists. For example, Railton (2009, 97; also quoted in Brownstein 2014, 548-499) claims that unreflective agents can ‘typically answer the Anscombean question, “What are you doing?”, without any further observation or inference’. 
way. Just as in the case of visual tracking, this explains why they lack the ability to give accurate verbal descriptions of their actions.\(^9\)

It is time to make these ideas more concrete. Suppose that performing an action \(F\) (tying your shoelaces, as the case might be) consists of performing a chain of (potentially overlapping) subsidiary actions, \(a_1\) to \(a_n\). The suggestion, then, is that while performing each \(a_i\), you have a distinctive representation of \(a_i\), as (part of) a way for you to \(F\). For example, agents in the F&J experiment would have representations with content expressible like this: ‘I am doing this to get the stylus to the target’, where the ‘this’ is what I will call an action-demonstrative, referring to the movements they are currently making.\(^{10}\) Moreover, if things go well, such representations can amount to knowledge: agents may, for example, know, of their current hand-movements, that they are a way for them to get the stylus to the target—even without being able to accurately describe those hand movements.

Two important clarifications are in order. First, although I have relied on an analogy with MOT and the associated idea of perceptual demonstratives, action-demonstratives are not just another type of perceptual demonstrative. Generally speaking, demonstrative modes of presentation rely on information links to the relevant particulars. In the case of perceptual demonstratives, this link is sensory. But the movements that constitute our intentional actions are not just things taking place out there, waiting for us to sense them. They are, rather, generated and controlled by us. This, of course, requires an elaborate cognitive infrastructure. The precise details of this infrastructure are not to the point here, and in any case are debated.\(^{11}\) What matters is just that it can be thought of as providing the needed information link to our ongoing actions. Unlike the more familiar information links underlying perceptual demonstratives, however, this is a link that generates and shapes its object (while perhaps also making use of sensory feedback). Thus, action-demonstrative representations are practical in something like Anscombe’s sense, being the ‘cause of what [they] understand’.

Second, action-demonstrative representations can, when things go well, amount to knowledge. What would the epistemic grounds of such knowledge be? An important part of the answer is standing states of skill or know-how.\(^{12}\) A skilled baseball outfielder, for example, is in a position to know, as they are catching a fly-ball, that what they are doing is a way for them to catch a fly-ball. A novice, by contrast, may only hope that it is. Skilled agents, as we say, ‘know what they are doing’.

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\(^9\) Recent philosophy of action has seen a few other appeals to demonstrative modes of presentation, including by Butterfill and Sinigaglia (2014), Löwenstein (2017), and Stanley (2011). These authors, however, discuss demonstrative modes of referring to repeatable action-types or ways of acting—not particular ongoing actions. This difference has metaphysical implications. The sorts of representations I am introducing here are not available to an agent unless she really is acting. A somewhat similar suggestion, concerning ‘act relational’ intentions in action, is defended by Wilson (1989).

\(^{10}\) When I speak of ‘representations’ here and throughout I am speaking of person-level, folk-psychological states: it is the agent who takes their arm and hand movements to be a way for them to move the stylus to the target. Beyond the commitment to an information link implied in the notion of an action demonstrative, I make no assumptions about the sub-personal vehicles of these states. Note also that such representations may often be far from the focus of attention during action execution.

\(^{11}\) For informative overviews of the relevant cognitive neuroscience, see Todorov (2004), Wolpert (2007), Franklin and Wolpert (2011), and Rescorla (2016).

\(^{12}\) Skill and know-how are often treated as interchangeable in philosophical debate. Although this can be disputed (Pavese 2016; Stanley and Williamson 2017), I will ignore this complication here. My suggestion is compatible with both ‘intellectualist’ views that construe skill and/or know-how in terms of propositional knowledge (Ginet 1975; Stanley and Williamson 2001; 2017; Stanley 2011; Pavese 2015), and anti-intellectualist ones, that reject this identification (Ryle 1945; Snowdon 2004; Setiya 2012). Dickie (2012) makes a similar suggestion.
This is compatible with an inability to give an accurate description of how they catch fly-balls. A useful analogy might be with perceptual recognitional capacities. I have the capacity to recognise Barack Obama by sight. As a result, when I see pictures of Obama (or the man himself), I am in a position to have demonstrative knowledge expressible as ‘that is Barack Obama’. This capacity, however, is perfectly compatible with an inability to give especially informative and accurate descriptions of what Obama looks like.

At this point, an anonymous referee raised the following worry. Wouldn’t an inability to give an accurate description of Obama defeat an attribution of knowledge of what Obama looks like? By extension, then, shouldn’t an inability to describe what one is doing defeat an attribution of knowledge of what one is doing? In response, we simply need to remember that knowledge attributions (like attributions of intentional mental states in general), are sensitive to guises or modes of presentation. Suppose I know what this man (who happens to be Barack Obama) looks like, for example, without knowing that this man is Barack Obama. In some conversational contexts, it would be natural to describe me as knowing ‘what Obama looks like’; in others, probably not. The way referential terms embed in mental state attributions is notoriously complex, and I have no general theory to offer. For present purposes, the point is just this: even if an agent has many false beliefs about her actions, this need not defeat the claim that she knows what she is doing, so long as we have reasons to think that the relevant actions figure in each case under different modes of presentation. My argument up to this point was meant to establish that we do have such reasons.

This, then, concludes my response to the non-cognitivist argument. The argument fails, because it assumes that knowledge of action and reportability must go together. As we have seen, however, there are reasons to deny this: our most basic epistemic connection to our own actions should be understood in action-demonstrative terms. As such, it is no surprise that it can come apart from an ability to describe our actions.

How convincing is this response? My response hinges on treating the epistemic condition on rational action as being met by demonstrative representations, and hence as not requiring rich descriptive content. As a result, one might wonder whether it trivialises that condition, to the point that it no longer meaningfully connects with our concept of rational action. I will close this paper by considering a more precise formulation of this worry. This will also help reconnect the approach I have been developing with broader themes in the philosophy of action.

4. DEMONSTRATIVES, ACTION-GUIDANCE, AND THE ‘SUBCONTRACTING’ WORRY

My suggestion has been the following. Suppose that an agent performs an action $F$ by performing a series of subsidiary actions $a_1$ to $a_n$. Then, while performing each $a_i$, the agent has a distinctive representation of $a_i$, as (part of) a way for them to $F$. What makes this representation distinctive, and distinctively practical, is its action-demonstrative character: it links up with $a_i$ through the agent’s capacities for controlling their own actions. Furthermore, when things go well, the agent knows, of $a_i$, that it is (part of) a way for them to $F$. Given its demonstrative character, however, this knowledge can come apart from the ability to accurately describe $a_i$ (beyond something like ‘whatever it was that I did in doing $F$’). But, one might argue, the appeal to demonstratives here gives the game away. Isn’t the real work being done by the cognitive infrastructure of motor control, leaving the agent’s rational capacities behind?

Luthra (2015, 2278-280) comes close to arguing in just this way. Luthra presents the core premise of his argument as the claim that demonstratives “‘subcontract’ the work of representation to non-rational factors” (ibid., 2279). Given this, it seems to follow that
knowing of your own actions under only demonstrative modes of presentation should not count for the purposes of meeting the epistemic condition on rational action.

Phrased in this way, this argument simply begs the question, at least in the present context. Luthra’s core premise simply assumes that the factors involved in securing demonstrative reference are ‘non-rational’. However, in the case of action-demonstratives, the relevant factor is our capacity for controlling our own actions. We cannot simply assume that this capacity is non-rational: that, after all, is essentially what is at stake in the present debate. Nevertheless, I think that there is a deeper concern here that needs to be aired.

Demonstratives are attractive because they are non-descriptive: they do not require of the agent to have access to an explicit description of the actions in question. By the same token, however, it may be hard to see how demonstratives—devoid, as they are, of descriptive content—can play a role in guiding action execution. To illustrate the point, Luthra (ibid.) invites us to consider the case of a witness to a burglary who one night ‘sees a shadowy figure leave a house through the window, and forms a belief that that person is the thief’. If this demonstrative belief is all that the witness has to go on, it seems clear that it cannot guide their subsequent actions to any meaningful extent. They cannot, for example, use that belief to pick out the thief in a police line-up.

This, I think, goes to the heart of the subcontracting worry: demonstrative representations, the worry goes, cannot help secure the status of unreflective subsidiary actions as rational actions, because they are not action-guiding. It is important to see, however, that the view I have been developing here is not affected by this objection. This is because the action-demonstrative representations I have been arguing for are not meant to guide action in the sense envisaged by the objection. Action-guiding representations in the sense envisaged by the objection would appear to be plans or blueprints for future (including very near future) actions, which serve as input for action-control systems. But that is not the role that action-demonstrative representations are meant to play. This is not because they are somehow passive or inert. Rather, action-demonstrative representations are intended to capture agents’ epistemic relation to their actions as they are acting. They are a part or aspect of—or embodied in—action execution itself, not inputs to it. This, I suggest, is enough to qualify the relevant actions as rational, in the sense of interest here.

This last point deserves emphasis. There is a long tradition in the philosophy of action that maintains that the mental states that figure in an account of action are action-independent states—states, that is, that do not entail that any particular action is executed. (Recall Wittgenstein’s (1958, sec. 621) famous question, ‘What is left over if I subtract the fact that my arm goes up from the fact that I raise my arm?’) On such a view, it seems inevitable that the only role for mental states in action would be as inputs to the (non-mental) machinery of action-execution. This broad conception of the place of the mind would seem to be what lies behind the subcontracting worry. My hope (as already suggested in section 1 of this paper) is that the conception of action-demonstrative representations and knowledge I sketched above can help point towards an alternative way of thinking about the role of the mind in bodily action.

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13 Dickie (2012) draws a similar distinction between two ways of thinking about the place of knowledge in action, although her purposes are different from mine.
REFERENCES


