Elizabeth Anscombe is well-known for advancing the thesis that an agent’s knowledge of his own intentional actions is typically not based on observation. While the thesis has been endorsed by other philosophers, there are many who find the idea dubious, particularly in light of the availability of a more modest thesis that is supposed to capture what truth there is in Anscombe’s. This is what I will call the two-factor thesis, according to which a person typically knows without observation what he intends to be doing, while his knowledge of what he is actually doing must be based on observation. Now it is surely true that if Anscombe is right in thinking that the agent does have a distinctive way of knowing what he is doing, this has something to do with his knowledge of what he intends to be doing. Hence my positive term for the special way of knowing which, according to Anscombe, the agent has: I will refer to it as knowledge in intention of what he is doing. In this paper I will present a somewhat qualified defense of the possibility – indeed the ubiquity – of knowledge in intention, and I will do so in part by pointing to a number of problems with the two-factor thesis. That thesis is naturally thought of as motivated by the underlying thought that intending and doing are two very different kinds of things, in virtue of which it is possible to have a kind of knowledge of the one that one can’t have of the other. I will be questioning both the underlying thought here – that is, I will be drawing attention to certain continuities or connections between intending and doing – as well as the idea that the ways of knowing distribute among intending and doing in the relatively simple way envisaged by the two-factor thesis.
In considering what an agent is doing, we are concerned, in the first instance, with events and processes describable using sentences in the progressive, and some of the semantic features of the progressive must be borne in mind. Chief among these is what is often called the openness of the progressive, and consists in the fact that a person may be doing something that he never does, if, for example, he is prevented or changes his mind. This is a special case of the more general fact that an event may be in progress without its ever being completed. The judgment that Jane is crossing the street is not shown to be false if she is struck by a car and killed halfway across, nor is the warning that the lamp is falling over falsified when Peter rushes to grab it before it falls over. A second feature, the broadness of the progressive, has application much more readily, if not exclusively, to descriptions of intentional actions. A person may be doing something, in a suitably broad sense, when at the moment she is not doing anything, in a more narrow sense, that is for the sake of what she is doing in the broad sense. Suppose a friend stops by my house and wants to go for a walk, and I say, “I can’t; I’m making bread.” This could be true even if as I say it I’m sitting on the couch reading the newspaper – perhaps I’m waiting for the bread to rise before putting it in the oven. The question what someone is doing sometimes calls for a more narrow answer, and context determines how narrow an answer is indicated. If I ask Sally’s husband what she is doing these days, he may truly say that she is working on the paper she’s to present at the APA next spring, even if at the moment she is teaching a class, or out shopping. On the other hand, if I ask what she is doing right now, the same response would not be correct in the same circumstances. There is of course some open texture here: for it to be true that she is working on the paper right now, it need not be the case that she is actually clacking away on her keyboard; it’s enough if she is staring at her computer screen, or perhaps pacing around her office tearing out her hair in frustration over how to put an important point. But she had better not be out shopping or hiking in the foothills.3

I take it as a fundamental datum that under normal circumstances, an agent in the midst of acting can typically provide a correct answer to the question, ‘what are you doing?’ straight off, without relying
on observation or inference. I suggest that this is possible because the answer he gives, ‘I am \( \varphi \)-ing,’ is an expression of what he intends to be doing. This should be distinguished, I think, from the various things he may intend to do: what he intends to be doing is something that calls for expression in the progressive, since it is an intention in the process (hopefully) of being realized. But it is a kind of intention, and as such it is clearly something the agent has a prima facie non-observational warrant to avow. Now while his judgment, ‘I am \( \varphi \)-ing’ expresses the agent’s intention to be \( \varphi \)-ing, unlike expressions of intention for the future, this is true if and only if he is, at that moment, \( \varphi \)-ing, so that in offering this in answer to the question about what he is doing the agent is presenting his expression of intention as, simultaneously, a description of what he is doing. This might seem like a cheat, but I think that we have a general warrant or entitlement to employ judgments about our own actions in this dual role, unless there are reasons for thinking that what we intend to be doing is not being done. Thus, while one’s ability to say straight off what one is doing is grounded in knowledge of one’s intentions, such knowledge is also, in favorable cases, knowledge of what one is doing. I suggest that we regard the intention-to-be-\( \varphi \)-ing, in such cases, as the vehicle for the agent’s knowledge that he is \( \varphi \)-ing. Hence the term ‘knowledge in intention.’

III

Now the openness of the progressive might seem to provide a quick and easy means of vindicating the possibility of knowledge in intention, along the following lines. A friend approaches me as I’m at the track one afternoon preparing to run. “What are you doing?” he asks, as I take off down the track. “I’m running a four-minute mile,” I call back, only to stop short coming off the first turn, exhausted, and plod slowly back to the starting line. “What happened?” my friend asks. “Well,” I say, “I didn’t run a four-minute mile – in fact I guess I can’t run a four-minute mile. But I was running a four-minute mile; I just didn’t complete it. You know, just as someone can be crossing the street but not cross the street, I was running a four-minute mile, even though I didn’t do it.”

Of course, the openness of the progressive cannot be appealed to in this way. The precise details of the truth-conditions of sentences
in the progressive is a matter of considerable obscurity, but it is surely a necessary condition for it to be true that I am \( \varphi \)-ing that it be possible for me to \( \varphi \). Hence the claim that I am or was \( \varphi \)-ing must be withdrawn if in the course of things it becomes clear that I cannot \( \varphi \); either because I lack the general skills or ability to \( \varphi \), or because I lack the materials required for \( \varphi \)-ing. If I put the kettle on the stove and say, “I’m making tea,” and am told that the stove isn’t working, I should not subsequently say that I was \( \text{making tea} \) when I learned that the stove wasn’t working, I would retreat to something like, “I was going to make tea” (or, “I was trying to make tea”). On the other hand, if, as I am putting the kettle on for tea, the phone rings and the tea-making is aborted, I could still later say that I was making tea when my friend called, as a result of which I didn’t make tea. The openness of the progressive allows for interruptions of actions-in-progress, including changes of mind. But from the fact that an event or process of a given type could not have been completed in the circumstances, it does seem to follow that no event of that type could have been underway.

These remarks pertain to the truth-conditions of sentences in the progressive, but they have obvious implications concerning a person’s warrant for describing what he is doing using such sentences. Clearly, to take an example of Anscombe’s, for me to be warranted in claiming that I am painting this wall yellow, I must know, or at least be warranted in believing, that this is yellow paint, that this is a wall, and so on; all of which is knowledge that can only be obtained by observation, understood broadly. It follows from this that self-ascriptions of intentional doings are subject to revision in light of considerations that become apparent through subsequent observation. If in the course of the painting I acquire, through observation or testimony or whatever, reasons for thinking that this paint only looks yellow because of the light in the room, my warrant for claiming that I am painting the wall yellow would thereby be undermined. As the provenance of the example shows, Anscombe was well aware of this point. Interestingly, she did not deem it fatal to the thesis that one knows of one’s own intentional actions without observation. I hope to show that she was right about this.
But first I want to point out some difficulties for the two-factor thesis stemming from the broadness of the progressive. Taken in its strongest form, at least, the two-factor thesis suggests that the agent’s mode of access to what he is doing is always via his observation of events that are in principle observable by a third person, and this, I think, is not correct. For it is a consequence of the broadness of the progressive that there are any number of things a person may be doing at a given moment, that could not simply be read off from what he is doing in a more narrow sense at that moment. Suppose for example that I have a nosy neighbor who spies on me using a telescope trained on my apartment. If I am sitting on my couch one afternoon reading a book, she would be in a position to see that I am doing so, but she would not be in a position to see, what might be perfectly true as noted above, that I am making bread. That I have this end in view even while I am not doing much for the sake of it is an ineliminable part of what makes it true that I am still doing so. My intention to do what is necessary for the sake of this end is the vehicle through which the action-in-progress is sustained during those periods in which I am waiting for the dough to rise, or taking time out to put a load of laundry in the wash. For this reason it is difficult, I think, even to draw the distinction required by the two-factor thesis, between my knowledge that I intend to be making bread, and my knowledge that I am making bread, since my knowledge of the latter fact simply consists, at least during such periods, in my knowledge of the former. I do not want to suggest that in such cases only I can know what I am really doing. If my neighbor can see into the kitchen where the bread is rising in a bowl she would be justified in believing that I am making bread, but my persisting knowledge that this is what I am doing does not stand in need of support, as does hers, from periodic glimpses of the rising dough. Moreover, whatever glimpses of the dough I may enjoy would cease to provide any reason for me to think that I am making bread, if for example, at some point I change my mind and abandon my intention to complete the process. But in such a case the continuing presence of the dough that was my neighbor’s only reason for thinking I was making bread in the first place now saddles her with a false belief that I am still doing so. (This confirms the old saying: “he who lives
by bread alone dies by bread alone.’”) The general point here is that, at least within certain limits, my judgments about what I am doing intentionally are simply not sensitive to the kinds of observations that may constitute the only bases on which an observer would be in a position to frame judgments about what I am doing.

Now it might be said that the reason why I don’t have to observe the rising dough in order to know that I am making bread is that I remember that I have left the bread there to rise, and isn’t this memory part of what justifies my statement that I am making bread, and doesn’t memory count as a kind of “observation” in the broad sense? I have two comments on this, one of which must wait until later. For now let me note that I can claim to be doing something when I am just starting to do it, so that the memory of those parts of it that I have already done forms no basis for my saying that I am doing it. There is some vagueness in the matter of when I can first be said to be making bread: I surely have the right to say it when I am rolling out the dough, but can I also say it when I’m just opening the bag of flour? I surely can’t say it when I am just buying the flour in the market, but note that the locution, ‘I am \( \varphi \)-ing in order to make bread’ straddles situations in which I can, and situations in which I cannot, already be said to be making bread as I am \( \varphi \)-ing. Compare: ‘I am buying flour in order to make bread,’ and ‘I am rolling out dough in order to make bread.’ In the latter case, though not in the former, we can say that I am making bread.\(^9\) I think this should lead us to wonder whether there is any reason other than “a dispensable usage” for drawing the line where we do here.\(^10\) Surely we can imagine a community of speakers who say that they are making bread when the bread is still just a twinkle in their eye. (We come close to this in English: ‘I’m buying flour because I’m making bread tomorrow; ’I’m reading Sidgwick because I’m teaching ethics next quarter.’) Would they be making a mistake? This would seem to be a rash claim, particularly since their usage reflects more clearly than ours the fact that, to paraphrase Michael Thompson: “the unity that joins flour purchase to bread-making is the unity that joins the acts we are willing to call parts of bread-making to one another, and makes an intentional action out of them.”\(^11\) In relying as it does on a more or less radical distinction between intending and doing, the two-factor thesis overlooks the continuity that exists between them.
The fact that an agent may intentionally do something in an unusual way also serves to highlight the relative independence of an agent’s judgments about what he is doing from the sorts of observations that would form the only possible basis on which an observer could learn what the agent is doing. Suppose I have the habit of leaving my apartment every day at precisely four PM and walking to my favorite pub for a pint and a game of darts. My nosy neighbor is aware of this (she sets her clocks by it), because she follows me around town to monitor my activities. I always take a certain more or less direct route from my apartment to the pub, but on this particular occasion, just for a change, I decide to take a very indirect route, heading initially in a different direction and walking through a park that lies off of the most direct route to the pub, in such a way that at certain points I am actually heading away from the pub. As she follows me along the way, the strong inductive support my nosy neighbor has for thinking that I am walking to my pub may justify her in believing that this is what I am doing, but clearly the fact that I am heading off in a different direction is a reason for her to think that I am going elsewhere. And as she continues to follow me, and sees me heading, at certain points, in a direction precisely opposite to that of the pub, she must become increasingly doubtful that this is my destination. It may not be until I actually arrive there that she can say that this is where I was heading all along. But the observations of my progress that I make en route provide no reason whatsoever for me to revise the judgment that I am walking to my pub.

V

In both these examples an action of a certain type was in progress throughout an interval of time during which nothing available to an observer would warrant saying that such an action was in progress. In the bread example, there was nothing that indicated that I was making bread, though I was; in the case of the walk there was actually something that indicated that I was doing something incompatible with what I was in fact doing. And I was in fact walking away from the pub for a while, though it was still true, even if not apparent to the observer, that I was also walking to the pub during this time. Now it might appear that this latter is a possibility only to
the extent that, as was indeed the case in the pub example, the agent was executing his plan of action all along, so that he never observed himself doing anything inconsistent with what he intended to be doing. Aren’t the agent’s judgments concerning what he is doing sensitive to what he observes at least to the extent that a judgment that purports to express knowledge in intention concerning what he is doing must be revised if the agent observes himself doing something inconsistent with his own plan of action? The answer is still no, at least within certain limits.

Suppose my nosy neighbor has her telescope trained on my kitchen one day as I am putting the kettle on and taking down the teapot. “He is making tea,” she says, truly enough. She knows that I sometimes make Irish Breakfast tea and sometimes make Darjeeling tea, so she has no basis for saying what kind of tea I am making until she sees me take down a tin marked ‘Darjeeling,’ and proceed to spoon some of its contents into the pot. At that point she would of course have to conclude that I am making Darjeeling. Now suppose that in fact my intention is to make Irish Breakfast tea; I just wasn’t paying sufficient attention to what I was doing for a moment. When I observe that I am spooning Darjeeling into the pot, must I withdraw my judgment that I am making Irish Breakfast tea, and conclude that after all I am making Darjeeling? Certainly not: at least not as long as I am willing and able to pour out the contents of the pot and replace it with the right stuff. I think this goes some way toward showing that the independence of self-ascriptions of intentional actions in progress from the agent’s observations of his bodily movements and surroundings is quite robust. Here I was making Darjeeling tea for a few moments – there was an event in progress of Darjeeling tea making, which would have been completed if I had not noticed the mistake. And my judgment “oops, I’m making Darjeeling!” expresses knowledge obtained through observation of something I was doing, albeit unintentionally. But this judgment does not force me to withdraw my claim to be making Irish Breakfast tea. Of course, upon seeing what I have done I might say, “well I guess I’m making Darjeeling,” but that judgment would not express knowledge acquired through observation that I am (or have been) making Darjeeling; it would express a change of mind, and really means, ‘I guess I’ll make Darjeeling.’
The things people do often do not come off flawlessly. Even a skilled mechanic occasionally turns a bolt the wrong way; when he notices this he does not have to conclude that he is not in fact fixing the engine; he’s disassembling it. If I leave my home in Santa Barbara to drive to Los Angeles and, confused by a detour near the freeway entrance, find myself getting on 101 north instead of 101 south, I don’t have to conclude that I’m going to San Francisco rather than L.A. It is true that if in the course of doing something I make repeated mistakes and have difficulty correcting them, I should probably begin to doubt my ability to do it, and this would indeed undermine my warrant for saying I am doing it. But this is just another instance of what we have already had occasion to notice, that a judgment about what I am doing is subject to revision if I become aware of something that gives me reason to think that I cannot do it.

All of these examples illustrate the fact that the stance of an observer and the stance of the agent involve quite disparate commitments. Insofar as my judgments concerning what you are doing purport to be based on observation, I am committed to ensuring that they are uninfluenced by my practical attitudes toward your actions: what I want you to do or intend for you to do. To the extent that I allow such influence, my judgments lose the status, and the characteristic authority, of observation reports. On the other hand, the agent’s role in exercising control over what he is doing not only allows but requires that his judgments about what he is doing express his practical attitudes, even to the point that he may discount as irrelevant to their truth some of his observational knowledge of what he is doing. Observation enables the agent to notice and correct mistakes; but what counts as a mistake here is determined by what the agent is doing, and this in turn is to a considerable extent determined by what he intends to be doing.12

VI

But this case also highlights another respect in which observation is relied on in intentional action. My observation of my mistake in this case was necessary for me to persist in claiming that I was making Irish Breakfast tea. Had I not noticed the mistake until I
tasted the finished product, my prior claims that I was making Irish Breakfast tea would have been proven false. Indeed, in any action of tea-making, I rely on information obtained through perception to locate the kettle, the teapot and the tea, and to make sure that the tea goes into the pot and not all over the counter. The whistling kettle tells me that the water is boiling, and the way the brew smells tells me whether I have put in the right amounts of water and tea. In walking to my pub I rely on perception to tell me that the light is red so that I have to wait, and to tell me that this is Ortega street so that I need to turn left. In making bread I tell by the way the dough feels that it has the right consistency, and so on. Reliance on information obtained through perception is, I think, necessary for any intentional action, and hence, to that extent, it is a necessary condition for me to know what I am doing. An example that Anscombe recurs to at several points in *Intention* is not really adequate to this phenomenon. She uses as an example of knowing without observation what one is doing the knowledge that I am writing my name on a blackboard with my eyes closed. Now insofar as this is supposed to represent a situation in which the subject has no sensory input concerning what he is doing it obviously fails, as in such a case the subject is still in receipt of tactile, proprioceptive, and kinaesthetic information, and some information of one or more of these kinds is necessary for him to be actually writing anything on the blackboard. Anscombe suggests that the example shows that when one is writing in the ordinary way, the eyes are only an aid which helps to ensure that what one writes is legible, while “the essential thing he does – namely to write such-and-such – is done without the eyes.”13 This cannot be right. Surely vision or touch or proprioception is necessary for one to be writing at all, not just for one to be writing legibly. It is difficult to imagine a person doing anything intentionally, even raising his arm above his head, if he is deprived of all forms of sensory input. The targeting and tracking of any bodily movement depends on a continual flow of sensory information of some kind or other. Action and perception are inextricably linked. Aristotle seems to have been well aware of this; it is why we do not find animals capable of locomotion but not perception.

So there are a variety of ways in which knowledge obtained through observation, broadly construed, is a necessary condition for
an agent to know that he is doing something intentionally. Sensory information is relied on in the targeting and tracking of bodily movements, and observation of the materials and one’s surroundings is needed to keep track of one’s progress in acting. Knowledge of one’s own skills and abilities is taken for granted in agency, and knowledge of various background conditions, obtained via observation or testimony or theory, is necessary for one to know that one is in fact doing what one intends to be doing. The dependence of self-ascriptions of intentional doings on these various kinds of knowledge also means that they are subject in some ways to revision in light of information obtained through observation.

Is all of this fatal to the possibility of knowledge in intention? I do not think so. It is important to bear in mind here that it does not follow from the fact that knowing that \( q \) is a necessary condition for knowing that \( p \), that the fact or belief that \( q \) must figure essentially in one’s justification for believing that \( p \). It may well be that some or all of the kinds of observation just summarized, while necessary for one’s knowing what one is doing, do not, and need not, supply information to the subject that forms part of his justification for his belief that he is doing what he intends to be doing. At any rate, this is the idea I want to explore. In doing so I am going to turn first to an area where the distinction just broached is crucial, namely apriori knowledge. This serves, I think, as a useful model in terms of which to think about knowledge in intention.

Not long ago it was widely thought that apriori knowledge, if there were such a thing, would have to consist in beliefs that were warranted in such a way that they were absolutely invulnerable to revision by empirical considerations. The sensible thought that no belief is so immune from revision then led, in a line of thought made famous by Quine, to the conclusion that there is no such thing as apriori knowledge. There is now a growing consensus among philosophers of logic and mathematics that it was a mistake to think that apriori knowledge has to satisfy this unmeetable condition. To know something apriori is, roughly, to believe it on the basis of an apriori warrant, and it is at least not obvious that apriori warrants must be absolutely indefeasible, or even absolutely indefeasible by empirical considerations. An apriori warrant should be a warrant that does not depend essentially on sense experience, but again, it is unlikely
that any way of obtaining an apriori warrant is entirely independent of experience. Defenders of the possibility of apriori knowledge have traditionally acknowledged that it is dependent on experience insofar as experience is required for the acquisition of logical and mathematical concepts. But the dependence of logical and mathematical knowledge on sense experience is far more extensive than this acknowledges. Most of us cannot conduct all of our mathematical reasoning in our heads; we need to rely on written formulas, diagrams, and so on. Even in a piece of reasoning that is done in the head, since all reasoning takes time, the reasoner must remember the steps in the reasoning that he has already completed, so that he can put together the various parts of the reasoning. Perception or observation, broadly construed, is pervasive in doing logic or mathematics. But this is not fatal to the possibility of a priori knowledge unless such perception or memory supplies the reasoner with empirical premises that constitute part of her warrant for believing the theorems she proves. Following some recent work by Tyler Burge, I am going to claim this is not the case.\textsuperscript{14} I will focus here on the role of the perception of the symbols in a proof one is constructing.

How does one’s perception of the symbols on the page figure in one’s construction of a proof? Following Burge, I think we should say that such perception plays an \textit{enabling}, rather than a \textit{justificatory} role, with respect to one’s knowledge of the conclusion of the proof. That is to say, perception here enables one to grasp with the understanding the propositions one is interested in – the properly mathematical ones – and thus to apprehend the logical relations among them. The perception of the symbols is usually transparent to one’s grasp of the propositions they express. One generally does not reason about the symbols, or even make judgments about them. One doesn’t usually reason, “now since in this system the arrow means material implication, this proposition follows from this one.” I simply see the formulas as the propositions they express. In doing so I am of course relying on my knowledge of what the symbols mean, and this knowledge is knowledge of a collection of empirical, contingent facts, such as the fact that the arrow means material implication. But these empirical facts do not figure in my justification for believing the theorem I have proved when I am finished. In other cases quite close inspection of the formulas on the page may
in fact be called for. I may, for instance, need to count parentheses or compare subscripts to make sure that this formula is indeed the antecedent of this conditional, so that I can apply modus ponens. Still, I do not have to cite these observational judgments as additional premises on which the conclusion of the proof depends.

If I leave a partially completed proof overnight, when I return to it the next day I look at the page to see where I was, and in doing so I am relying on the page as a form of external memory. But the page will genuinely enable me to grasp what I did and didn’t accomplish yesterday only if, for example, the symbols have not been altered by gremlins overnight. It is an empirical fact that they have not. But this possibility does not lead mathematicians to hire observers to watch their worksheets throughout the night, so that they can accompany their journal submissions with affidavits certifying that the work is gremlin-free. If we lived in a world in which gremlins were rampant, or in which our perceptual systems were very unreliable, we would not have very much apriori knowledge. But it does not follow that such facts must be cited as part of the justification for our beliefs in logical or mathematical propositions.15

Reliance on perception of the symbols in these ways brings with it the possibility of various kinds of error. It is possible that the gremlins were out last night, and empirical information might reveal that they were. Thus empirical inquiry can undermine an apriori warrant. In such cases empirical considerations may need to be appealed to in order to shore up the warrant for believing a mathematical proposition. But this is not something one needs to worry about until one has reason to do so, and it does not alter the fact that we have a general entitlement to take mathematical reasoning at face value, in such a way that we can still say that our knowledge of logic and mathematics is, in normal circumstances, apriori.

VII

With this in mind, let us return to the agent’s knowledge of what he is doing, with a view to seeing to what extent the distinction between reliance on enabling capacities or conditions, on the one hand, and properly justificatory facts or beliefs, on the other, can be used in defending the possibility of knowledge in intention. I will consider
in turn the various kinds of observation involved in intentional action alluded to earlier.

The targeting and tracking of one’s bodily movements using vision, proprioception, and kinaesthesia represent clear instances, I think of the reliance on enabling capacities. The continuous stream of sensory information that accompanies any action is part of what enables me to do it; it is not part of my justification for believing that I am doing it. Indeed, most of this information remains within the perceptual-motor module of the mind; some of it is available to me, but little of it actually rises to the level of judgment. For this reason it would be a mistake to speak of reliance on it as a form of observation of what I am doing. Observation worthy of the name is an activity, involving attentiveness, and therewith the understanding. It typically manifests itself in the form of judgments (think of observing a bird in a tree). But most of what we do is unaccompanied by judgments about what we are doing, and very little of it involves judgments about how our limbs are moving. Here it is important to remember that a great many of the things we do consist of the running of elementary perceptual-motor routines. The formation of the intention to brush my teeth now engages the program, so to speak, called brushing the teeth. In running this program, perception in various forms is relied on in getting to the bathroom, locating the toothbrush, and carrying out the appropriate tooth-brushing movements. When I rely in this relatively casual and inattentive way on the deliverances of the senses, I am ignoring the possibility that the gremlins were about last night and replaced my toothpaste with some insidious poisonous substance, or rewired my sensory and motor nerves so that I am really scratching my back when it seems as though I’m brushing my teeth. I have a right to take this for granted, as I have a right to take for granted that the rest of the tooth-brushing routine will run its course in the usual way, so that I can turn my understanding to worrying about knowledge in intention, the categorical imperative, or whatever. If in the course of the process someone calls out asking what I’m doing, my response, “I’m brushing my teeth” is simply a report of what program I engaged, or, unpacking the metaphor, it is an expression of what I intend to be doing. My right to assume that the program is running properly gives me the right to employ this expression of
intention as a *description* of what I am doing. Here we have knowledge in intention in a relatively pure form. Similarly, in writing my name on the blackboard, vision, touch and proprioception form part of what enables me to do it (not just part of what enables me to do it legibly). But these senses do not supply information that forms part of my justification for saying that I am writing my name.16

The exercises of more complex skills, such as making bread or walking to the pub, usually involve the stringing together of elementary routines punctuated by intermittent opportunities for judgment based on genuine observation. Notice, however, that most of the observational judgments one makes in the course of doing such things are judgments about the materials one is working with, or about one’s surroundings, rather than judgments of the form, ‘I am doing ϕ-ing.’ One judges that the dough is of the right consistency, that the water is boiling, that this is Ortega street. When I am following a recipe instruction that says, “stir until the mixture thickens,” I rely on observation to tell me that it hasn’t thickened yet, or that it has, but observation does not tell me that I am stirring until it thickens. To follow this instruction I need to be able to recognize a thick mixture when I see one. This general recognitional capacity is part of my ability to do this kind of thing. This is enabling knowledge of a rather obvious sort. In following this instruction, the exercises of this recognitional capacity take the form of particular observational judgments: “this mixture is sufficiently thick.” These judgments are literally part of the activity here – they are parts of the process by which this sauce comes into being. They are not premises on which I base judgments *about* what I am doing. (‘This mixture is sufficiently thick, so I am stirring until it’s thickened?’ That doesn’t make sense.) The ability to recognize, through observation, that one has done something unintentionally plays, as already noted, an important role in intentional action. But again I think this is an enabling role; the agent’s ability to recognize a mistake as such, and his knowledge of how to correct it, are part of his ability to perform actions of a certain type.

Memory plays a role in action quite analogous to the role it plays in carrying through a piece of reasoning in one’s head. Suppose I undertake to prove a simple mathematical proposition, say of the form $P \rightarrow (Q \rightarrow R)$, in my head. I first derive $S$ from $P$, and then
S \rightarrow R \text{ from } Q. 
Remembering that I derived } S \text{ from } P, I simply apply modus ponens and conditionalize twice. And I do not have to cite the empirical fact that I derived } S \text{ from } P \text{ as a premise on which the conclusion of the proof depends. Similarly, I know in intention, as I leave the dough to rise, that I am doing so. This knowledge is available to me as I am sitting on the couch reading, in the form, “I left the dough to rise,” and it remains knowledge in intention (as is my knowledge, derived from this, that the dough is rising – this is knowledge in intention of the product of one of my actions).

Much of the knowledge of background circumstances relied on in agency is enabling knowledge that need not be thought of as part of the agent’s justification for his belief that he is doing what he intends to be doing. The painter has a right to take at face value the labels on his paint cans (a form of testimony), and to rely on his perceptual ability to judge colors, at least until he has reason to question these things.

Where there is reason to question such things, a self-ascription of an intentional doing may stand in need of support from information acquired through observation. Consider Davidson’s example of filling out a form while making ten carbon copies of it. Suppose the clerk has never made quite that many copies with this type of paper before. In such a case he may indeed need to check that he is getting all the way through to the last one, and his knowledge that he is doing so will be partly based on such observations. The need to have one’s claims to be doing things backed up by such observation increases to the extent that one is working with materials or tools that are unfamiliar, or extending one’s capabilities beyond previous limits. If the man pumping poisoned water in Anscombe’s famous example has just rigged up this complicated machinery in order to carry out his murderous intentions, he may not be entirely confident that he is poisoning the inhabitants of the house, and he may need to verify by observation that the poison is flowing properly. But in order to do this he must be able to take for granted more basic descriptions of what he is doing. Suppose the poison is introduced into the water from a container that is connected to the pump handle in such a way that every time the pump handle is depressed, the container of poison is supposed to be tipped sufficiently to allow some of the poison to flow into the stream of water being pumped.
If he is concerned about whether this connecting device is accomplishing its purpose, and wants to verify that it is, he needs to observe the movement of the container while he is moving his arm up and down, and he will take for granted without looking or otherwise observing that he is moving his arm up and down now, but not now, as he focuses his attention on the container. And he will certainly be warranted in doing so.\textsuperscript{18}

\textbf{VIII}

If agents are to have a general warrant to present their expressions of what they intend to be doing as descriptions of what they are doing, it must be the case that expressions of intention are subject, to some extent, to the same kinds of enabling conditions as self-ascriptions of actions. I think this is in fact the case, and it represents a further continuity between intending and doing that is worth noting. For example, should it become clear to Anscombe’s pumper that the water is leaking out of the pipe into the ground, to the extent that the problem cannot be readily remedied, he would lose his right to say that he is poisoning the inhabitants. But it would also be perverse for him to continue pumping \textit{with the intention} of poisoning them. Similarly, it would be as irrational for someone like me to claim that I intend to run a four-minute mile as it would be for me to claim that I am actually running one. It is true that while the pumper could not say, “I was poisoning them when I realized that the apparatus would never work,” he could still say, “I was pumping with the intention of poisoning them when I realized the apparatus would never work.” Avowals of intention are not falsified by subsequent failure to act, even if it becomes clear that the agent could not have done what he intended. I think it would be a mistake, however, to conclude that intending and doing are radically different, in respect of the ways in which they are responsible to what actually happens.

Imagine a community that employs an intention-like concept – call it \textit{twintention} – that differs from intention in that the claim that one intends to $\varphi$ is falsified by one’s inability to $\varphi$. This would be a quasi-“factive” notion of intending; to “twintend” to do something means approximately, ‘to have an intention that can actually be carried out.’ There would of course be further differences between
our discourse about actions and theirs. They couldn’t say, “I twintended to do it but I realized I couldn’t.” for example; in lieu of this they would perhaps resort to “I thought I twintended to do it but I realized I didn’t.” It might seem that there would be no first person authority in the expression of twaintention, but I do not think this need be the case. Suppose that the reason why they manage to get by with a quasi-factive notion of intending is that their wills are in such harmony with their causal powers that they only very rarely find themselves unable to do what (as we can say though they cannot) they intended to do. Perhaps they are even puzzled by it when it happens, which is why they have only a rather clumsy way of describing it. Their puzzlement would be similar to our puzzlement over self-deception, which of course provides the only occasions for us to say, “I thought I intended to do it but I realized I didn’t.” My point is that we would not find these people incoherent or unintelligible, and I think this is because their practical concepts differ only in degree, not in kind, from ours.

The relative invulnerability to falsification by subsequent failure to act of our expressions of intention is a condition of the possibility of first person authority with respect to them, given that our wills often seek to outrun our causal powers. But this authority is not absolute, and the gap between intending and doing is not a license to avow intentions that are uninformed by serious consideration of one’s abilities and opportunities for action. Indeed, the self-ascriptions of intention of a person who persistently fails to do what he claims he intends to do gradually begin to lose their credibility over time. This is what makes possible, and sometimes enables others to detect, various kinds of self-deception in the practical domain.

Our concept of intention is designed to allow for local or occasional failure to carry out one’s intentions, and so acknowledges the fact that we sometimes change our minds, forget, are interrupted, or realize that we can’t do what we planned. We can rather easily imagine communities that employ concepts that bear clear family resemblances to our concepts of intention and doing, but where the continuity between them is tightened up. But I think we cannot imagine a community which allows for a radical or global disconnect between intending and doing. By a global disconnect I have in
mind the following. We are all familiar with accounts of the nature of pain that attempt to forge constitutive links between pain and pain behavior. Such accounts face a prima facie problem in the form of Putnam’s example of the super-spartans.\textsuperscript{20} It is clear that there could be a community of people who frequently experience pain but who never, or only rarely, exhibit the behavior characteristic of pain. Here we have a possible situation in which pain and pain behavior are globally disassociated. Now what I think is not coherent, is a race of super-\textit{slackers}, who employ this form of words, ‘I intend to do so and so,’ but who never, or only rarely, follow up this utterance with any doing of so-and-so. In such a community, this form of utterance could not play the role it plays for us, of enabling us to plan and coordinate our individual and collective activities. Moreover, there would be little point in taking care that one’s expressions of these “intentions” was informed by a realistic assessment of one’s abilities and opportunities for action – if I’m extremely unlikely to take any steps to do what I “intend”, why should I worry about whether I can really do it? At best, these people are expressing wishes, or feelings of approval toward their doing certain kinds of things. But to paraphrase Wittgenstein, ‘intention can’t be a feeling, because no feeling could have the consequences of intending.’\textsuperscript{21} The utterances of these people simply lack too many of the consequences of intention to count as expressions of such. (Notice that they would enjoy near absolute first person authority in this area, but it wouldn’t count for much.)\textsuperscript{22}

Fortunately, most of us don’t form intentions to run faster than speeding bullets, or to leap over tall buildings in a single bound. This is part of the background that gives rise to a general right to take our own expressions of intention, and those of others, at face value.\textsuperscript{23} But it also confers a more limited, though still significant, authority on the agent’s own judgments about what she is going to do, and also on her judgments concerning what she is doing.\textsuperscript{24} We rely on perception, memory, testimony and much else both in forming intentions and in carrying them out. But most of the information available to an agent as she acts forms part of what enables her to do what she is doing, rather than premises that form part of her justification for saying she is doing it. An agent’s self-ascriptions of intentional doings are subject to revision in light of observation.
(though less so than third person ascriptions of doings), and some of them may stand in need of observational support. If we lived in that gremlin-ridden world, where every attempt at action is a leap into the unknown, there wouldn’t be much if any knowledge in intention. But we don’t live in that world, and most of our knowledge of our own intentional actions is not based on observation, even in the broad sense of that term. It is knowledge in intention. The two-factor thesis, in contrast, takes insufficient account of the ways in which what a person intends to be doing help determine what he is doing. It overlooks the distinction between enabling and justificatory knowledge as it applies to agency. And it overestimates the independence of one’s knowledge of one’s intentions from various kinds of enabling background conditions. The two factor thesis draws much of its plausibility from what Richard Miller (writing in a different context) has described as “our preference for simple correlations between broad metaphysical characterizations of kinds of facts and broad epistemic characterizations of kinds of knowledge.” I think the moral Miller recommends in his context applies here as well: “resist the lure of simplicity.”

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**NOTES**

thesis either. I comment on Velleman’s view in n. 17 below. Some defenders of the two-factor thesis might prefer to put the contrast in terms of observational knowledge of what the agent is doing versus non-observational knowledge of what he is *trying* to do. I do not think that the differences between alternative ways of putting the two-factor thesis are significant in the present context.

2 Anscombe’s positive term for the special kind of knowledge in question here is ‘practical knowledge,’ but in ordinary language this term applies primarily to the kinds of things an agent knows how to do. While there are certainly important connections between knowledge in intention and practical knowledge in this ordinary sense – connections which will figure importantly later in this paper – I think it best to distinguish the two notions. I have sometimes seen the term ‘agent’s knowledge’ used in this context, which is fine as long as it does not obscure the fact that some of the things an agent is doing become known to him in the same way that they could become known to a third person; viz., the things he is doing unintentionally.

3 The terms ‘open’ and ‘broad’ are taken from Galton (1984).

4 A correct answer, because of course there will be an enormous number of correct answers to the question, most of which he would not be in a position to give without observation.

5 I assume that if an agent is \( \varphi \)-ing intentionally, he intends to be \( \varphi \)-ing. This is akin to what Bratman (1997) calls the “simple thesis,” but the difference is that my thesis is stated throughout in the progressive. (The simple thesis is that if an agent \( \varphi \)'s at \( t \), then at or just before \( t \), he intended to \( \varphi \).) I think this difference makes my thesis less vulnerable to the criticisms Bratman makes of the simple thesis. My “intentions to-be-\( \varphi \)-ing” are a kind of intention in action. But unlike other defenders of notions of intention in action (e.g., Searle, 1983; Wilson, 1989), I do not see a fundamental difference between such intentions and intentions for the future. Indeed, I think that in saying “I’m going to San Francisco,” as I am getting on the plane, I express the same intention that I could have expressed last week by saying, “I’m going to San Francisco next week,” or yesterday by saying, “I’m going to San Francisco tomorrow.” The different formulations are required if I am to keep track of my intention. I have in mind here the notion of “keeping track” discussed by Evans (1982, p. 192ff.). Since my intentions-to-be-doing such and such are intentions in the process of implementation, they can do some of the work that some philosophers have ascribed to *willings* or *volitions*. Sellars’s (1966) account of volition, for example, is motivated by the continuity between ‘I shall raise my arm in ten minutes,’ ‘I shall raise my arm in five minutes,’ and ‘I shall raise my arm now.’ He regards the last utterance as the characteristic expression of a volition. Brandom (1994) takes over much of Sellars’s doctrine, but emphasizes the continuity with expressions of intention by calling Sellars’s volitions ‘intentions in action.’ My only disagreement with this account is that the future tense still lingers in ‘I shall raise my arm now.’ An intention that is genuinely in action should be expressed in the present tense. Since ‘I raise my arm’ can only be used to describe an habitual action, we are led to the formulation in the progressive, ‘I am raising my arm.’
This condition is probably too strong. A person might knowledgeablely say that he is writing a book even if he knows he is going to die before he finishes it, in which case he can’t write the book (perhaps he has arranged for a colleague to finish it). It would be more correct to say that for a person to be \( \varphi \)-ing it must be possible for the \( \varphi \)-ing to be completed (though not necessarily by the agent who initiated it). I will ignore this complication in what follows.

He may of course acquire such knowledge through testimony or even theory, but I take it that Anscombe’s formula, ‘knowledge without observation’ is intended to rule out not only the idea that the agent learns what he is doing by observing his own movements, but also that he must rely on testimony, induction, etc.

This is why it is difficult to find examples of purely physical, non-biological processes to which the broad progressive can be applied. If a forest fire is moving toward the Dick Smith Wilderness when the wind shifts, so that for a time it is not moving in this direction, but after a time it begins heading there again, it is hard to see what could justify saying that it was heading toward the wilderness throughout this time – was it just taking a break from doing so for a while?

See Anscombe, 1976, p. 40; Thompson, 1998.

Anscombe wonders at one point whether there is any reason other than “a dispensable usage” for not calling a command true if it is obeyed.

Thompson (forthcoming), putting ‘flour-purchase’ and ‘bread-making’ for Thompson’s ‘egg-purchase’ and ‘omelet-making,’ respectively. In this illuminating paper Thompson develops a kind of Sellarsian “Myth of Jones” tale in which a community having at first only a very general doing-like concept, one that includes wanting, trying, and intending as well as doing proper, gradually develops out of it the various distinct concepts that we employ.

The theme of this paragraph is elaborated with great subtlety and insight by O’Shaughnessy (1980, ch. 8).


See Burge, 1993.

Frege (1978, p. viii) ridiculed his contemporary Schroeder for including among the axioms of a formal system an “axiom of symbolic stability.” Wittgenstein was fond of pointing out that mathematicians rely on the stability of their symbols. I do not think this was intended to encourage skepticism about apriori knowledge. It seems rather to have been a warning not to use the term ‘apriori’ as what Wittgenstein elsewhere calls a “philosophical superlative.”

My discussion of routines is indebted to some remarks on the topic by Ivan Fox (in a paper presented at UC Santa Barbara in October 1998).

I think this point can be generalized. Observational knowledge of the properties of objects or stuffs in the environment frequently depends upon the exercise of practical skills. In order to obtain perceptually-based knowledge that an object is red \textit{all over} or \textit{wider at the back than it is in the front}, I often have to pick it up and rotate it, or walk around it, to obtain different views of it. In such cases practical abilities are relied on as enabling capacities for attaining perceptual knowledge.
I think this is possible only if my warrant for believing that I am actually doing what I intend to be doing is not itself based on the current flow of perceptual information.

19 In either of two ways. Earlier, we envisioned a community that regarded intending as an initial stage of doing. The twintenders, on the other hand, employ an intention-like concept that is closer to doing than ours in that certain kinds of subsequent failure to act falsify the statement that the agent twintended to do it.


22 The super-slacker example was suggested to me by Donnellan (1963), who drew attention to the differences between pain and pain behavior, on the one hand, and actions performed in carrying out an intention, on the other. Donnellan notes that this is a potential problem for the two-factor thesis, a qualified version of which he endorses in the same paper. I think it should lead us to question as at best misleading the idea that, as he puts it, my intention in acting “will exist whatever I am in fact doing.”

23 This is not to say that, having decided to φ, my knowledge that I will φ is founded on evidence to the effect that I, or people in general, typically do what they intend. Velleman (1985) holds this view, and argues for it in part by criticizing Anscombe’s remarks about her example of a doctor who says to a patient, in the presence of a nurse, “nurse will take you to the operating theater.” Anscombe says that this remark serves as an order to the nurse, an expression of his intention, and information to the patient, and it is the latter “in spite of being in no sense an estimate of the future founded on evidence.” Velleman objects that while not “occasioned by evidence”, the doctor’s remark is founded on evidence, including “that the nurse is herewith getting explicit instructions to [take the patient to the operating theater], and that nurses tend to understand and obey such instructions.” (This helps to motivate Velleman’s view that one’s knowledge of what one intends to do is also founded on evidence, part of which is the intention itself). But to maintain that the doctor’s remark is founded on such evidence surely involves saying that the doctor must believe these things, and that such beliefs must play a justificatory role with respect to his assertion to the patient. I think, in contrast, that his warrant for his assertion consists in the fact that he has a general right to act in his capacity as a doctor, part of which involves his giving orders to subordinates. He need not have evidence that his commands will be obeyed, unless there is reason to think they won’t. Velleman notes that if the patient ends up in the morgue due to a strange misunderstanding, “he will be entitled to claim that the doctor misinformed him.” Of course this is correct; there are an unlimited number of ways in which what the doctor said could turn out false (including abduction of the patient by gremlins, etc.). But I do not think it follows that the doctor must have evidence that none of these things will happen in order for his assertion to be warranted.

24 The distinctive authority of expressions of intention stems, I believe, from the fact that a judgment of the form, ‘I intend to φ,’ if sincere, expresses the very intention that the sentence uttered semantically ascribes to the agent. Hence,
provided the agent is minimally rational, his sincere expressions of intention will be true. I develop this idea in an account of first person authority with respect to beliefs in Falvey (forthcoming).

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