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Success and Knowledge in action: Saving Anscombe's Account of Intentionality

Abstract: According to Anscombe, acting intentionally entails knowledge in action. This thesis has been near-universally rejected due to a well-known counterexample by Davidson: a man intending to make ten legible carbon copies might not believe with confidence, and hence not know, that he will succeed. If he does, however, his action surely counts as intentional. Damaging as it seems, an even more powerful objection can be levelled against Anscombe: while acting, there is as yet no fact of the matter as to whether the agent will succeed. Since his belief that he will is not yet true while his action is in progress, he cannot possibly know that he is indeed bringing about the intended goal. Knowledge in action is not only unnecessary for intentional action, it seems, but—at least as regards success-bound types of action—impossible to attain in the first place.

In this paper I argue that traditional strategies to counter these objections are unsatisfactory and propose a new account of knowledge in action which has two core features: (i) It invokes an externalist conception of justification which not only meets Davidson's challenge, but also casts doubts on the tacit internalist premise on which his example relies. (ii) Drawing on recent work about future contingents by John MacFarlane, the proposed account conceives of claims to knowledge in action as assessment-sensitive so as to overcome the factivity objection. From a retrospective point of evaluation, previous claims about future events and actions can not only be deemed as having been true, but also as having been known. ~~This research was supported by SNSF grant PZ00P1_179912.~~

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1 Knowledge in Action

In order to count as acting intentionally, Anscombe (1963) claims, an agent must know what he is doing. More precisely, my ϕ -ing intentionally entails knowing that I'm ϕ -ing; it is a necessary (though not sufficient) condition for intentional action. If, for instance, I am asked why I'm tapping my foot and respond that I wasn't aware of it, I do not count as having done so intentionally.

Despite its intuitive plausibility, the entailment thesis is near-universally rejected—primarily due to Davidson's well-known carbon copier counterexample. There is, however, an even more damaging objection that can be levelled against Anscombe, an objection which does not only question whether knowledge is a necessary condition for intentional action, but whether it is so much as possible. In the following, I will briefly outline Anscombe's theory of action in very broad strokes, introduce the objections and assess traditional strategies of defending the entailment thesis. Since the prospects of the latter are dim, I will sketch a new account of knowledge in action, which, I hope, can put these worries to rest. The resulting epistemology of action is less the fruit of Anscombe exegesis than an independent attempt to make sense of the entailment thesis. It is consistent with many of the rather idiosyncratic features of Anscombe's philosophy of action, yet relies on them as little as possible. As such, it is intended to appeal to both Anscombians and her critics alike.

1.1 Textbook Anscombe

The 'knowledge a man has when acting intentionally', Anscombe argues, is special in various respects. It is 'knowledge without observation', i.e. not based on perception or inference, and as such groundless.¹ "In opening the window," Anscombe writes, "I do not pause and think to myself: 'Let me see, what are my movements bringing about? The opening of a window.'" (1963: 51). To help intuition along, knowledge without observation is frequently compared to bodily awareness. Just as I know the position of my limbs without having to look, I do not have to observe my bodily actions in order to come to know what it is that I'm doing. The similarities between the two types of knowledge are limited though. As regards action, observational evidence *cannot* reveal what I am

¹ For recent discussion of Anscombe's theory of action, see Moran (2004) and Setiya (2007). For knowledge without observation in particular, see Pickard (2004) as well as the survey of the literature by Schwenkler (2012).

doing, since a particular episode of bodily behavior could count as any number of actions. When I'm tapping my foot, what is given through observation from a third-person perspective cannot settle whether I am communicating in codes with the tenant below, following the rhythm of the music or am engaged in yet another action (cf. Anscombe 1963: 11). In order to be ϕ -ing intentionally, I have to conceive of my behavior under a particular description, that is, as ϕ -ing.² Importantly, what is known without observation is not merely what I am taking myself to do, or what I am trying to do, but—as Anscombe insists—*what happens*, namely, the event I am bringing about in the external world.

The epistemic attitude entailed by intentional action is thus distinctive in three respects: (i) *its content*, as the agent has to know what she is doing, and what is happening, under a particular description definitive of the action; (ii) *its source*, as the knowledge one has in acting intentionally is not derived from observation and finally (iii) *the character of the epistemic attitude*, which is rather demanding. It does not suffice to believe, or to believe justifiedly, that I am engaged in a particular action. According to Anscombe, nothing short of knowledge in the full-blown sense will do.³

Features (i) and (ii)—content and source—have given rise to considerable controversy. Regarding the third feature—the knowledge criterion—general opinion is more uniform: Although it is commonly accepted that intentional action is accompanied by some sort of psychological attitude, the claim that the latter amounts to an agent's *knowledge*, i.e. (at the very least) a true, justified, belief of what she is doing, has triggered widespread criticism. Such an account faces two principal problems. One concerns *true* belief, the other concerns *belief as such* (or, as I will argue, *justified* belief).

1.2 The Factivity Problem

Let's begin with truth. In ϕ -ing, I have no guarantee whatsoever that I will reach my goal. When attempting to swim across the Channel, for instance, I cannot be sure of success. I might well believe that I am swimming across the Channel, or I might know that I am attempting to swim across the Channel. But since there is, so far, no fact of the matter about whether or not I will succeed, the belief that I

2 “[T]o say that a man knows he is doing X is to give a description of what he is doing under which he knows it” (1963: 12).

3 As is well known, there's a fourth feature: the ‘practical’, rather than ‘speculative’ nature of knowledge in action, in virtue of which what is known in action is ‘the cause of what it understands’. I will turn to this peculiar characteristic as soon as it becomes relevant.

am *indeed* swimming across the Channel—that I am ‘doing what happens’—cannot yet be true. Hence, there is no possible way for such a belief to amount to knowledge. In stubbornly *calling* this attitude knowledge, non-observational or not, we would have to ‘jump to conclusions’ (Paul 2009) or take an epistemic ‘leap of faith’ (Langton 2004).⁴

In the literature, the fundamental nature of the factivity problem is not sufficiently appreciated and frequently glossed over.⁵ For instance, those arguing against non-observational knowledge frequently end up with a ‘two-factor approach’ (a ‘mad account’ according to Anscombe): the agent knows what he intends non-observationally, yet his knowledge that he is in fact bringing about the intended event is based on perception.⁶ Since there is not yet a fact as to whether the agent will indeed succeed in bringing about his goal while the action is still in progress, however, perception is an inadequate source of knowledge to solve the problem. The core problem concerns the *absence* of an object of knowledge rather than the appropriate *mode* to apprehend it.⁷

1.3 The Doxastic Problem

The second problem is that φ -ing intentionally might not even entail *believing* that one is φ -ing, as Davidson’s famous carbon copier example (1978: 91–92) demonstrates. A man is attempting to make ten legible copies by pressing his

4 Langton’s primary target is not Anscombe’s account, but Velleman’s, which is even more demanding epistemically. Whereas Anscombe makes knowledge in action a necessary requirement for intentional action, Velleman (1989) identifies intention as such with a particular type of knowledge (wishful, self-fulfilling true belief).

5 A notable exception is Grice, who gives an early statement of the problem. His focus lies with future-directed intentions (‘I intend to A’), but translates to as yet uncompleted actions (‘I will indeed succeed in doing A’): “A man who expresses an intention to do A (who says ‘I intend to do A’) is involved in a factual commitment; he is logically committed to subscribing, with this or that degree of firmness, to a factual statement to the effect that he will do A. [. . .] The standard source of entitlement to make such a factual statement is not available for this case, since the ordinary concept of intention is such that if one intends to do A, one is logically debarred from relying on evidence that one will in fact do A. No alternative source, however, of a different, non-evidential kind, for the entitlement to say ‘I shall in fact do A’ seems to be forthcoming” (1972: 8).

6 Cf. Adams & Mele (1989) and Falvey (2000) for discussion.

7 This is not to say that the epistemic reach of non-observational knowledge should not be scrutinized. It might prove inadequate for reasons independent of factivity. We should be careful, however, not to level the factivity problem against non-observational knowledge *qua* non-observational knowledge, as is not uncommon.

pen hard on a stack of blank sheets interspersed with carbon paper. All the while, he is deeply sceptical of his success. As such, he does not believe that he will indeed produce all the ten copies he needs. If he succeeds, however, it would be astonishing to deem his action non-intentional. But if φ -ing intentionally does not entail that the agent believes that he is φ -ing, it will certainly not entail that he knows he is φ -ing. Let's call this the 'doxastic problem' for knowledge in action. Given that knowledge in action seems neither necessary (the doxastic problem) nor even so much as possible (the factivity problem), Anscombe's account might sound completely implausible.

In the next section, I will briefly survey three attempts to defend Anscombe's proposal, all deemed insufficient for one reason or another. Thereafter, I'll argue against the two objections just raised. The goal is not to defend Anscombe's comprehensive action theory in word and letter, but rather to show that the plausibility of the entailment thesis is not as easily dispelled as is frequently assumed. I will thus largely refrain from a cumbersome exegesis of Anscombe, yet occasionally point out how the suggested account squares with the more general picture proposed in *Intention* (1963).

2 Defending the Knowledge Criterion

2.1 Reduction in Scope

There are different types of strategies to defend some variation of the knowledge criterion. One might, for instance, attempt to reduce its scope by imposing restrictions on what it is that needs to be known by the agent. Even in the carbon copier example, there is *something* the agent knows about his actions and, it might be argued, it is in virtue of that knowledge that the action counts as intentional. As Davidson himself acknowledges, when acting intentionally, what the agent does is "known to him under some description" (1971: 50). The carbon copier, we might hold, certainly knows that he intends to make ten copies (Donnellan 1963), or that he is trying to make ten copies (O'Shaughnessy 2003).

Some authors deem such a change in the object of knowledge inappropriate. They propose to stick to the object of knowledge envisioned by Anscombe, which does not consist in the agent's intending or his trying to do something, but his very doing and that which happens. The complications are to be accommodated by opting for a less demanding epistemic attitude, that is to say, belief rather than knowledge. Yet others hold that the only way to defend some form of the knowledge criterion is to opt both for a different epistemic attitude and a more modest object of knowledge. Setiya (2007), for instance, does precisely

that. He proposes that the agent must act in the belief of doing particular things such as, in Davidson's example, pressing hard on the paper, with the end of making ten copies. On this account, it suffices that the agent believes, rather than knows, that he is engaging in some of the actions constitutive of bringing about his more general goal. Such strategies are, as I attempt to show below, unsatisfactory because they concede too much.

2.2 Action Descriptions in Progressive Aspect

A more promising path to pursue is the appeal to the 'broadness' of the progressive of action verbs.⁸ Action descriptions involving atelic verbs in progressive form ('is swimming', 'is walking' etc.) do not have a success condition built in and thus impose limited epistemic demands. While swimming, I can know at any point in the course of doing so that what I am taking myself to do is—hard-core scepticism aside—in fact happening. No epistemic leaps of faith required. In the case of atelic action verbs, the truth of a description in the progressive tense licenses the truth of its description in the past tense: if I am swimming, it will be the case that I swam or that I have been swimming. For telic action verbs—verbs with a success condition built into their semantics—that is not necessarily the case: if I am trying to swim across the Channel, and turn around after a few strokes, it will not be true that I have crossed the Channel or that I was crossing the Channel. While trying to cross the Channel, it is simply impossible for me to know that I am indeed getting to the other side since any such fact has not yet been established.

The flexibility introduced by the progressive tense, however, is not limited to atelic action descriptions. It extends to a considerable class of telic actions—we might call them 'weakly telic'—even if the stipulated goal rests unfulfilled. For instance, one might count as crossing the street though one never makes it to the other side.⁹ Actual completion is not essential—nothing stands in the way of granting the agent knowledge of her actions, just as in the case of atelic action descriptions. However, in many cases (call them 'strongly telic') the completion

⁸ Cf. Anscombe (1963: 39), developed in Falvey (2000). Further discussion in Thompson (2008, Ch. 8), Paul (2009), Haddock (2011) and Schwenkler (2012).

⁹ Hence Anscombe's insistence that "a man can be doing something which he nevertheless does not do" (1963: 39). The interesting though somewhat murky distinction between weakly and strongly telic actions extends to the past progressive tense. Whereas it sounds infelicitous to say 'Mary was crossing the Channel' if she returned ashore after a few strokes, there's nothing wrong with saying that Frank 'was crossing the street' if he turns back or gets run over.

of the goal stipulated by the action verb is essential for the action to be considered as taking place or for the event to happen. I don't count as crossing the Channel if I give up after a few strokes, as finishing my soup or killing a fly if I don't, or as walking towards the library if the distance between it and me is not decreasing.¹⁰ But if strongly telic actions are success-bound, how can I know that I am indeed doing what I intend to do? The appeal to the broadness of the progressive tense is not effective here to overcome the factivity problem. As such, it can only serve as a partial defence of the entailment thesis.

2.3 Practical Knowledge

The third strategy to defend the knowledge criterion takes its cue from yet another peculiarity Anscombe has in stock when it comes to knowledge in action. Such knowledge, she proposes, is not like ordinary, "speculative" knowledge, i.e. passive or "receptive," in so far as it aims to fit the facts or is "derived from the objects known." Rather, it is "practical" in nature and, as such, "the cause of what it understands" (Anscombe 1963: 87). If I happen to be mistaken as to what I'm doing, "the mistake here is one of performance, not of judgement" (5, 56, 57, 87–89). The precise nature of practical knowledge remains one of the more elusive chapters of Anscombe's theory of action. Strategically, this way to save the entailment thesis should nonetheless already be obvious: it consists in cashing in maximally on the resources provided by practical knowledge so as to help overcome the factivity problem. However, the more such practical knowledge is moulded into a type of epistemic state that does not constitutively aim at representing the facts, the less it deserves its name and the more bewildering the resulting picture of intentional action.¹¹

This point can be made in somewhat more detail. Let's have a look at Anscombe's discussion of the difference between speculative (or 'contemplative') and practical knowledge:

10 Last example by Haddock (2011). Here the strongly telic aspect seems to be imposed not by the verb but by the preposition. Interestingly, there is not only a general success condition at work in this type of action description, but a stipulated manner of how the result is to be brought about. Though rather different from standard strongly telic actions, they pose a similar problem for the entailment thesis.

11 For a discussion of Anscombe on practical knowledge, cf. Velleman (1989), Moran (2004), Setiya (2007, 2008, 2009), McDowell (2011), Haddock (2011), Thompson (2011) and Schwenkler (2011).

Can it be that there is something that modern philosophy has blankly misunderstood: namely what ancient and medieval philosophers meant by practical knowledge? Certainly in modern philosophy we have an incorrigibly contemplative conception of knowledge. Knowledge must be something that is judged as such by being in accordance with the facts. The facts, reality, are prior, and dictate what is to be said, if it is knowledge. And this is the explanation of the utter darkness in which we found ourselves. For if there are two knowledges—one by observation, the other in intention—then it looks as if there must be two objects of knowledge; but if one says the objects are the same, one looks hopelessly for the different mode of contemplative knowledge in acting, as if there were a very queer and special sort of seeing eye in the middle of the acting (1963, 57).¹²

Here's one way to interpret this passage: the contemplative conception of knowledge seems unsuited for knowing what one is doing, since "facts, reality, are prior, and dictate what is to be said"—and presumably also what can be known. The factivity of contemplative knowledge would require "a very queer and special sort of seeing eye in the middle of the acting"—an eye that anticipates what will come to pass, an eye that jumps to conclusions. Introducing a second type of knowledge of a practical nature seems to bring an extra complication into the picture: if there are two types of knowledge, should there not be two different objects of knowledge as well? Practical knowledge, we might think, captures what I am (or take myself to be) doing, contemplative knowledge what happens. But multiplying the objects of knowledge would be a mistake, as Anscombe vigorously argues in various places. If things work out, the action and the event are one and the same thing—'I do what happens'. In virtue of being defined by the same description, they must constitute a single object of knowledge.¹³ Sticking with a single object of knowledge, however, does not prove the futility of a second kind of knowledge: a single object of knowledge might be ap-

12 As so often happens in *Intention*, various strands of the discussion are run together. From this passage it seems that the dichotomy between observational and non-observational knowledge maps onto the one between speculative and practical knowledge. This is of course not the case. A priori knowledge, such as mathematical knowledge, is clearly responsive to facts in ordinary ways without drawing on observational input.

13 Here's a characteristic passage: "The difficulty however is this: What can opening the window be except making such-and-such movements with such-and-such a result? And in that case what can *knowing* one is opening the window be except knowing that that is taking place? Now if there are two *ways* of knowing here, one of which I call knowledge of one's intentional action and the other of which I call knowledge by observation of what takes place, then must there not be two *objects* of knowledge? How can one speak of two different knowledges of *exactly* the same thing? It is not that there are two descriptions of the same thing, both of which are known, as when one knows that something is red and that it is coloured; no, here the description, opening the window, is identical, whether it is known by observation or by its being one's intentional action" (1963: 51).

proached via different modes of knowledge, a ball can be known to be spherical through touch or vision. Hence the question whether 'modern philosophy', with its preference for a contemplative conception of knowledge is not up a blind alley and should rather approach the same object of knowledge via a different epistemic mode. What epistemic mode? Practical knowledge. And practical knowledge, to repeat, is not "derived from the objects known", but the "cause of what it understands".

One might reject Anscombe's account of practical knowledge outright as "causally perverse and epistemically mysterious" (Velleman 1989: 103). As regards the alleged causality, however, we could follow Moran's suggestion and treat practical knowledge as the formal rather than the efficient cause of what it understands. In virtue of the operative description which defines my doings as a particular action, practical knowledge specifies intensionally, rather than causes extensionally what it understands. Anscombe's slogan "concerns the formal or constitutive role of the description embedded in one's practical knowledge making it the case that this description counts as a description of the person's intentional action. If the agent didn't *know* this happening under *this* description, then as so specified, it *would not be* 'what he is intentionally doing'" (Moran 2004: 54, italics in the original).

Though the charge of causal perversity might thus be averted, its potentially non-factive nature remains a mystery—a mystery that is captured well, yet not resolved, by Anscombe herself:

If then my knowledge is independent of what actually happens, how can it be knowledge of what does happen? Someone might say that it was a funny sort of knowledge that was still knowledge even though what it was knowledge of was not the case! On the other hand Theophrastus' remark holds good: 'the mistake is in the performance, not in the judgment' (1963: 82).

Since a non-factive conception of practical knowledge would be a "funny sort of knowledge" indeed, this strategy to save the entailment thesis might be deemed heroic, but remains implausible from the outset. Theophrastus' dictum does little to dispel the worries.

Let's briefly take stock. On the one hand, not knowing I was φ -ing is an excellent explanation of my not φ -ing intentionally (subconscious conundrum aside). On the other hand, it is difficult to explain how it is even so much as possible to know that I am actually φ -ing while φ -ing, at least as long as we refuse to make do with atelic actions only, water down knowledge to knowledge of trying or mere belief and shy away from an utterly implausible, non-factive conception of 'practical' knowledge. But the knowledge criterion can be defended, I

think, without making any concessions. In the following, I'll attempt to show how.

3 Knowledge Proper and the Factivity Problem

Intentional action, conceived as entailing knowledge of what one is doing, we have said, gives rise to two fundamental problems. Firstly, as Davidson has argued, in acting intentionally, one might not need to hold a corresponding belief, let alone know what one is doing. Secondly, it would be reassuring if we could leave epistemology proper in place, i.e. agree that “[k]nowledge must be something that is judged as such by being in accordance with the facts”—but it is not obvious how this could be so much as possible. Both problems are strongly related to the success of one's action: in the former case, what undermines belief is a low perceived probability as to one's abilities to succeed. In the latter case, prior to having successfully completed one's action, there simply is no fact that can be known in acting intentionally.

I will argue that neither problem is specific to action theory. The very possibility of knowledge regarding one's action is a variation of the semantic puzzle of future contingents, a puzzle that can be solved. Davidson's counterargument, I will suggest thereafter, is less a matter of belief than of justification. As such it raises questions regarding internalist and externalist accounts of epistemic justification, and thus concerns a complication of epistemology proper rather than one of action theory narrowly conceived. Whereas the general debate between internalists and externalists has not given rise to a consensus after decades of argument, externalism, I'll suggest, could well carry the day as regards knowledge in action.

3.1 Assessment-sensitivity of Future Contingents

Let's begin with the factivity problem. On an indeterminist view, the future course of affairs is a contingent, rather than a settled, or necessary, matter. At every moment in time, there is a variety of genuine possibilities as to what world will be actual in the future. Along which branch the world will develop as the future unfolds is more than just epistemically indeterminate, it is metaphysically indeterminate as there is as yet no fact of the matter.

Indeterminism gives rise to a semantic paradox regarding utterances of future contingents. Take the following example:

(1) Frank: "It will be sunny tomorrow."

At Frank's context of utterance, whether it will be sunny the next day is still indeterminate. Accordingly, the proposition¹⁴ expressed by (1) must be judged as neither true nor false. Call this, following MacFarlane, the *indeterminacy intuition*. The next day, let's assume, the sun is shining. In retrospect, we are inclined to hold that what Frank said was true. That is, we deem the proposition expressed by Frank's utterance as true at his context of utterance. Call this the *determinacy intuition*. Problematically, orthodox semantics cannot accommodate these conflicting intuitions.

In Kaplanian semantics¹⁵ a *context* is a potential occasion of utterance for a sentence *S* which plays a twofold role. On the one hand, it determines the *semantic values* for the indexical expressions of the sentence. In Kaplan's terms, the context and the character of the sentence (or sentence type) jointly deliver the content expressed. Though your utterance 'I am cold' and mine have the same character, they express different contents because the context provides different individuals as the semantic value of the indexical 'I'. On the other hand, the context determines the *circumstances of evaluation*. That is, it specifies under which set of parameters (a world, a time, potentially a location, a standard of precision etc.) the truth or falsity of the content should be evaluated. If on Monday, drenched to the bones, I utter 'It's raining' and claim the same the next day in bright sunshine, the difference in truth value is accounted for by the fact that my different contexts of utterance specify different time parameters and hence different circumstances of evaluation. In the first case, the circumstance of evaluation is the actual world on Monday, in the second it's the actual world on Tuesday. Though identical in content, my utterance on Monday is true, but my utterance on Tuesday is false. Importantly, whether or not my utterance was true yesterday depends on the context of utterance, not the context of assessment—there is no such thing on this view. On Tuesday, yesterday's claim that it was raining *remains* true, because the time parameter in the circumstances of evaluation provided by the circumstance of utterance is Monday. The only context that affects the circumstances of evaluation is the context of utterance,

14 This section draws heavily on the work of John MacFarlane. His original statement of the paradox was phrased in terms of *utterances* (MacFarlane 2003), but neither the puzzle nor its solution resist formulation in terms of uttered propositions (MacFarlane 2008, 2014). For a critical discussion cf., for instance, Cappelen & Hawthorne (2009) and the contributions to *Around the Tree* (Correia & Iacona 2012).

15 Cf. Kaplan (1979, 1989).

so there cannot be any truth value switching which might explain our contradictory intuitions regarding future contingents.

A standard way to make sense of the indeterminacy intuition is to seek recourse to supervaluationism, a semantics that besides ‘true’ and ‘false’ introduces a third value, ‘indeterminate’ (or ‘neither true nor false’). According to Thomason (1970), for instance, an utterance is true or false *simpliciter* if true or false in all possible worlds and otherwise indeterminate. Frank’s claim ‘It will be sunny tomorrow’ is evaluated as neither true nor false, and even though the next day the sun happens to be shining, it is still not true in all possible worlds, therefore this evaluation won’t change. Though indeterminacy is accounted for, our retrospective determinacy intuition is not.

MacFarlane’s solution¹⁶ to the puzzle is to expand the roles contexts can play: besides the context of utterance, we also have to take the context of assessment into account. Presume that on Monday (t_1) there is a genuine possibility for it to rain the next day (t_2). This means that the world actual at c_1 branches into sunny worlds (w_1) and rainy worlds (w_2, w_3), as illustrated in Figure 1. Which of these worlds will turn out actual is, on Monday, still not settled. The context of Frank’s utterance, c_1 , specifies a circumstance of evaluation comprising of the world of utterance (up to then $w_{@}=w_1=w_2=w_3$) and the current time t_1 . At that circumstance, Frank’s claim ‘It will be sunny tomorrow’ is indeterminate. Once the future has unfolded and w_1 , a sunny world, has turned out actual, (1)—as uttered at c_1 ($w_1=w_2=w_3, t_1$) and *assessed* from c_2 (w_1, t_2)— is true.

According to the supervaluationist picture, retrospective evaluation of (1) takes into account all worlds overlapping at the context of utterance c_1 , that is, w_1, w_2 and w_3 . In virtue of not being true at all these worlds, (1) is, and remains, indeterminate. On MacFarlane’s view, the retrospective evaluation of (1) focuses on only *some* of the worlds overlapping at the context of utterance, namely those which *also* branch through the context of assessment. If it turns out that the latter is c_2 , (1) was true as uttered at c_1 and assessed from c_2 ; if it turns out that the context of assessment is c_3 (w_3, t_2), (1) was false as uttered at c_1 and assessed from c_3 . Both the intuition of prospective indeterminacy and retrospective determinacy are borne out.

¹⁶ I am simplifying considerably. What matter for our purposes is the basic idea. For details regarding the semantic framework, see MacFarlane (2014).

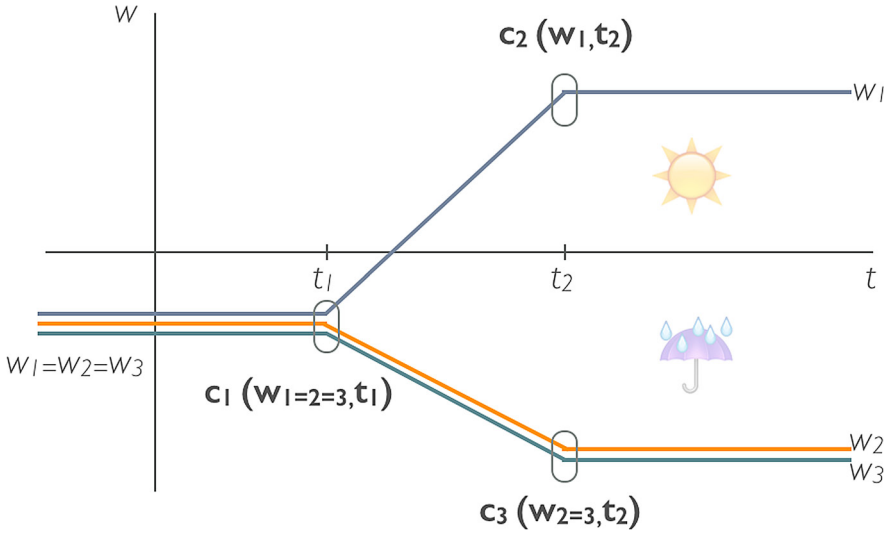


Figure 1: Context-sensitivity in an indeterministic universe.

3.2 Assessment-sensitivity of Knowledge Attributions

This curiosity regarding the *truth* of a proposition uttered or entertained extends, I think, to the attribution of *knowledge* of propositions entertained. Conceive of knowledge as a justified, true belief, and assume that Frank's belief that it will be sunny tomorrow is well justified. In an indeterministic universe, Frank cannot know today that it will be sunny tomorrow, because his belief is not true yet—rain tomorrow is a genuine metaphysical possibility. In retrospect, however, if Frank was right and had good reasons for his belief, it is perfectly felicitous to say that Frank *knew* it would be sunny today. With hindsight, not only the alethic assessment becomes more determinate (a truth-indeterminate proposition gets a determinate truth value) but also the assessment of the subject's epistemic state (a truth-indeterminate justified belief becomes a true justified belief, i.e. knowledge, or a justified false belief). At a context of assessment which equals the context at which Frank entertains his belief, his epistemic state is one of justified belief. Once the future has unfolded and w_1 , a sunny world, has turned out actual, claim (1), as entertained at $c_1(w_1=w_2=w_3, t_1)$ and *assessed* from $c_2(w_1, t_2)$, will

be true and so Frank will count as having held a true, justified belief—that is, he will count as *having known* that it would be sunny the next day.¹⁷

The fact that knowledge attributions are context-sensitive is not news.¹⁸ For instance, in standard scenarios, John might count as knowing that his car is in his driveway, if that's where he left it. If someone voices the possibility that it might have been stolen, however, John will likely concede that he doesn't know. The revision is less a matter of correcting a *mistaken* claim to knowledge, than one of adapting to a different, more demanding standard of knowledge. John will not only acknowledge that he now *doesn't* know, but also that he *didn't* previously know the whereabouts of his car before the standards were raised. To make sense of this retraction, we have to evaluate John's claim not according to the (low) epistemic standards of the context of utterance but according to the (higher) standards of the context of assessment. The context-sensitivity at play in such cases, however, is importantly different from the one developed above. What explains the variation in knowledge attributions when it comes to different epistemic standards are variations in *justification*. According to ordinary standards, John's belief that his car is in the driveway is justified. Judged by a different—higher—set of standards, it might not be, and the belief will thus not count as knowledge. What explains the variation in knowledge attribution in the previous paragraph, by contrast, regards not justification but the *truth* of the subject's belief. Though the context-sensitivity thus affects different constituents of knowledge (truth v. justification), they manifest the same basic relativist logic: knowledge ascriptions, it seems, are sensitive not only to contexts of utterance/utterance but to the context of assessment in several ways.¹⁹

17 Attacking the premise of an open future does not weaken the argument, but makes it, if anything, stronger. In that case knowledge ascriptions at the context of utterance are no longer problematic due to metaphysical and epistemic indeterminism, but only due to the latter: In a deterministic universe, the future course of events is settled and beliefs about it are either true or false. Naturally, on certain accounts of justification we might still be loath to call such beliefs knowledge before the future has materialized. From a suitable context of assessment, however, future contingents can not only be understood as having been true (obviously so, due to determinism), but—if well justified—as having been known.

18 See, for instance, MacFarlane (2005), who covers context-sensitivity regarding standards of precision. The example discussed in the main text is his.

19 The application of assessment-sensitivity to epistemic expressions has become a fertile field of research recently. Besides the mentioned standards of precision, epistemic modals can also be seen as sensitive to contexts of assessment (cf. Egan, Hawthorne & Weatherson 2005; Egan 2007; Stephenson 2007, MacFarlane 2011). The linguistic intuitions inspiring such accounts, however, are not uncontroversial (cf. Hawthorne 2007, Von Fintel & Gillies 2007, 2008; Yalcin 2011; Braun 2012; Kneer 2015, 2020). Still, one can safely accept the assessment-sensitivity of future contingents—where intuitions are considerably more uniform—without buying into a rampant relativist

3.3 Assessment-sensitivity of Knowledge in Action

Utterances and beliefs regarding actions underway are utterances and beliefs regarding events in progress. If the latter can be true, and known, at a context of being in progress when assessed from a context of completion, so can the former. There is thus nothing mysterious about the “knowledge a man has when acting intentionally”. From a retrospective context of successful completion, the agent, if holding a suitably justified belief, can be understood as *having known* that she was acting as intended at the context of action in progress. There is no reason to presume that she is making an epistemic leap of faith, or jumping to conclusions. This is of course perfectly in line with our ordinary ways of speaking and acting. Having completed an action successfully while having had good justification that I would, it's as natural for me to say that I knew I was baking a cake or that I knew I was making the boss uncomfortable as it is to say that I knew there'd be a department meeting today. The opposite would be deeply counterintuitive: if I can have knowledge regarding future events, it would be astonishing if I could not have knowledge regarding future events which I can directly influence and whose progress I can monitor.

Just as the attributions of intentionality and knowledge in action go hand in hand on this account if the action is successful, the absence of one feature will coincide with the absence of the other.²⁰ When my action is unsuccessful, my claim to practical knowledge fails. My belief about my doings, despite being maybe well justified, turns out false. Since knowledge is factive, I simply cannot have known. Relatedly, if I unintentionally bring about B, while trying to do A, I also lack knowledge in action. I thought of myself as bringing about A, not B, and as long as B is not constitutive of A, I will cite precisely this fact—that I didn't know I was doing B—as evidence in favor of the assessment that I did not do B intentionally.

The account of knowledge in action developed here leaves the fundamental traits of Anscombe's picture in place. The relevant type of knowledge is still practical in Moran's qualified sense and differs from purely 'speculative' knowledge. My conception or 'description' of what I am doing is an essential constituent of the knowledge I have when acting intentionally. It defines my behavior as a particular action, and it is in this sense that practical knowledge should be con-

ism regarding epistemic notions in general. Besides, while the solution sketched here is developed in terms of MacFarlane's relativist semantics, a similarly strong case could be made by employing more conventional frameworks such as, for instance, the one developed in Brogaard (2008).

²⁰ I am ignoring counterexamples *à la* Davidson for the moment, but will turn to them shortly.

ceived as “the [non-efficient] cause of what it understands”. Knowledge in action so understood is also in some fundamental way non-observational: I do not pause and look to see what I’m bringing about. Given the underdetermination of observational evidence as regards the definition of an action, it’s simply impossible to find out. It is in virtue of the very description I have of my doings that they count as the action in progress, and that description I surely know without observation.

The question whether I can know what I am doing, and what happens, *exclusively* in a non-observational fashion remains, of course, highly controversial. Moran, for instance, argues that practical knowledge in action, despite being in an important sense non-observational, is nonetheless aided by observation. I do not want to get entangled in this debate. One brief point, however: the question of non-observational purity can be rephrased as the question whether we can only attribute knowledge in action *post-hoc*, if the agent has made sure by perceptual means that he indeed fulfilled his aim. *Prima facie*, such a condition does not seem necessary, in which case the chances for exclusively non-observational practical knowledge might stand better than frequently assumed.

4 The Doxastic Problem

4.1 Belief and Justification

Davidson’s famous counterexample is frequently reported thus: the carbon copier, skeptical as to his success of producing ten legible copies, cannot be said to know that he will make ten copies, because he does in fact not even believe that he will. This argument, according to which knowledge is *a fortiori* out of the question, is rather unconvincing and it is not what Davidson had in mind.²¹ In clear-cut cases in which an agent lacks the belief that he is φ -ing, his φ -ing will not be deemed intentional. For instance, if a man scribbles absentmindedly on a stack of carbon papers (hence lacking the belief that he is) and produces ten legible copies, there is little doubt that he didn’t make them intentionally. Or, to take another type of case, presume someone attributes zero probability to his succeeding in φ -ing, in which case he cannot be said to believe that he is φ -ing. Pursuing his action nonetheless is much rather a manifestation of *irrational*

²¹ Things are of course different if we follow Williamson’s (2000) suggestion according to which the verb ‘to know’ picks out a *sui generis* mental state that cannot be factored out into more basic constituents.

behavior than of intentional action, quite independently of whether the goal is attained. The entailment thesis is not under pressure from such cases.

Now, beliefs do not have to be held with certainty. If an agent attributes a low probability to the truth of his belief, it is no less a belief—even though, on some accounts, it might be deemed unjustified. I may, for instance, cling to the belief that it will be sunny in London all summer despite being aware that the probability of that is extremely low. Of course, if it turns out to be sunny in London all summer, my belief, in virtue of being poorly justified, will not amount to knowledge. The carbon copier—call him Donald—who considers his chances of success relatively low, but not inexistent, can thus be conceived as believing to some degree, but arguably not as knowing, that he is making ten copies. The doxastic problem, as we called it, does not derive from an *absence* of belief, but rather from a lack of epistemic justification for the belief regarding one's action.

4.2 Internalist and Externalist Justifications

Let's take a look at how Davidson phrases his example:

[I]n writing heavily on this page I may be intending to produce ten legible carbon copies. I do not know, or believe with any confidence, that I am succeeding. But if I am producing ten legible carbon copies, I am certainly doing it intentionally (Davidson 1978: 2001: 80).²²

The argument thus comes to this:

1. I can φ intentionally without believing with confidence that I'm indeed φ -ing.
2. Knowing that I'm φ -ing entails believing with confidence that I'm φ -ing.
3. Therefore, I can φ intentionally without knowing that I'm φ -ing.

The crucial premise is of course the tacit one, i.e. (2). What is the philosophical motivation for such an assumption? The only explanation that comes to mind is that Davidson implicitly pledges allegiance to (a strong form of) epistemic internalism. Internalism is the view that one must be aware of, or be able to become aware of, the grounds that justify one's belief that *p*. Differently put, justifiers must be 'internal' to and directly accessible from the subject's cognitive perspective. On another account, the subject has to fulfill certain epistemic duties in order to count as holding a justified belief. Attributing a low subjective probabil-

²² For a slightly different formulation, cf. also Davidson (1971, in 2001: 50).

ity to the belief that one will actually φ can be seen as a *defeater* to the internalist belief justification. Lacking justification, the belief is no longer a candidate for knowledge. The man who is skeptical about whether he will succeed in making ten legible copies does not hold the belief that he will indeed succeed with justification and can thus not be considered knowing that he will.

The alternative to epistemic internalism is externalism.²³ Weak externalism denies that justification should exclusively be conceived as an internal matter, a strong form denies that justification is ever internalist. According to this view, the justifiers of a belief need not be accessible to the believer, as they can be external to her cognitive perspective. What matters instead is (according to one approach) that the subject's belief *reliably tracks the truth*, whether or not she thinks it does. An unconfident examinee reliably giving the right answer to a certain question can be seen as knowing, despite the fact that she is unsure and has no inkling of how she came about the information.

Adapted to knowledge in action, we might similarly consider self-confidence or subjective probability less important than objective probability, that is, the agent's reliable disposition to successfully carry out the intended action. In this case, the justification of my belief that I'm φ -ing will not be defeated by my lack of self-confidence; what justifies my belief can be external to (and hence unimpinged by) my cognitive perspective. According to such a view, there is no *prima facie* problem in attributing knowledge to Davidson's carbon copier. The man's reliable disposition to make ten copies (whether or not he has confidence in himself) is sufficient to justify his belief and thus to warrant the ascription of knowledge. If, on the other hand, the man's objective probability of success is extremely low, his belief that he will make ten copies should not count as knowledge.²⁴

4.3 Objective and subjective probability

Let's bring the proposed view into somewhat sharper focus by aid of an example. Sitting in front of a stack of 100 sheets interspersed with carbon papers, Mary is

²³ Chisholm (1966), Bonjour (1985) and Lehrer (2000) are well-known advocates of internalism; Goldman (1967), Armstrong (1973), Dretske (1971, 1981) and Nozick (1981) are externalists.

²⁴ The variations of internalist and externalist approaches to justification are plentiful and the line between the two types of account can be drawn in very different ways (cf. Kim 1993). The internalist/externalist dichotomy, developed here in terms of subjective and objective probability, is orthogonal to some of the possible distinctions, yet fits the general thrust of several accounts naturally enough.

trying to make exactly 57 copies—not one more, and not one less. Like Donald, she deems the probability of success low. If she, to her surprise, succeeds, we would call this a lucky accident rather than an intentional action. Superficially, the two scenarios are very similar: In both cases the agents attribute a low probability of truth to the belief that they are indeed doing what they intend to do. Due to the perceived marginal chances of success, the beliefs are poorly justified—neither agent has good grounds to believe they will fulfil their goal. Both beliefs turn out true. We cannot attribute knowledge to either of the agents, yet Donald's action counts as intentional whereas Mary's as a fluke. Why is that?

The difference between the two cases is, of course, one of objective probability of success.²⁵ In Mary's case, the probability is extremely low, in Donald's it is considerably higher. Whether or not an action counts as intentional, it thus seems, depends less on the subjectively perceived probability of success, and more on objective probability, i.e. on the actual difficulty of the task for the agent. This gives us a matrix of four basic cases (Table 1): Let's start with Donald and Mary, who are both skeptical about their success (bottom row of the table), but Donald's task is conceived as comparatively easy, whereas Mary's as hard. Intuitively, if successful, Mary's action counts as a lucky accident, whereas Donald's counts as intentional.²⁶ Presume that John also wants to make ten carbon copies and that Sally also wants to make 57 out of 100 possible ones, but in comparison to Donald and Mary they are both confident as to their success (upper row of the table), i.e. they attribute a high subjective probability to their belief's being true. Table 1 summarizes the different cases for the success condition:

Table 1: Dependence of intentionality and knowledge on objective and subjective probability.

	High objective probability	Low objective probability
High subjective probability	<i>John</i> Intentional Action Knowledge	<i>Sally</i> Lucky Accident ?
Low subjective probability	<i>Donald</i> Intentional Action ?	<i>Mary</i> Lucky Accident No Knowledge

²⁵ More precisely, what matters is the estimated objective probability of success as perceived from a perspective external to the subject—the same perspective from which the intentionality of the action is assessed. It is not the (frequently unknown) actual objective probability of success that matters, because the latter is not generally what informs our ascriptions of intentionality or our assessment of an agent's epistemic situation.

²⁶ In fact, empirical evidence suggests that intentionality ascriptions might depend only on objective probability and not on subjective probability. See, for instance, Mele & Cushman (2007).

Where subjective and objective probability coincide, the assessment is uncontroversial: John's action is intentional, his belief is both true and justified (no matter whether we're internalists or externalists) and hence an instance of knowledge. Mary, if successful, would be deemed lucky. Due to the low probability of success, of which she is well aware, she cannot justifiably claim that she knew she was indeed making 57 out of 100 copies. Such cases of homogenous probabilities are consistent with both Anscombe's and Davidson's views.

Things get complicated where the two types of probability diverge. To attack knowledge as a necessary condition for intentional action, Davidsonians argue that Donald doesn't have knowledge in action, whereas his action, if successful, is nonetheless judged intentional. Considering his chances of success low, Donald does not have reasons to take his belief—i.e. that he will indeed make ten copies—to be well justified. If said belief, unjustified from his perspective, turns out true, it would, according to this picture, come somewhat as a surprise to hear him insist that he knew all along that he was making ten copies.

From an external perspective, however, the belief held by Donald with a low degree of confidence is not unjustified: there is a high enough objective probability of succeeding in simple tasks such as this one. From such an external perspective, Sally's belief that she will make 57 out of 100 copies, despite being held with great confidence, on the other hand, does not seem well justified. Hence, on such an externalist account of justification, Donald can be said to know what he's doing, whereas Sally cannot. Differently put, according to such a view, Anscombe's entailment thesis faces no obstacle.²⁷

27 The general recipe for construing counterexamples to the entailment thesis consists in maximizing objective probability by invoking an extremely simple everyday action, while minimizing subjective probability through imbuing the agent with legitimate doubts as to the success of his actions. Here's a well-known scenario, standardly attributed to Bratman:

I'm recovering from paralysis of my right hand. I try to clench my fist, though am sceptical whether I'll succeed. If I succeed, I cannot be said to have known I would. However, I have surely clenched my fist intentionally.

The simplicity of the action guarantees that it is assessed as intentional. The legitimacy of my doubts prevent us from ascribing knowledge. The trick lies not only in stipulating a strong mismatch between the two types of probabilities, but in obfuscating the fact that their contrasting levels should affect each other and hence the attribution of knowledge and intentionality: if I do have legitimate doubts as to whether I can indeed clench my fist—something that generally takes months of practice after paralysis—then it is by no means obvious why my unlikely success should count as intentional. An objective probability of five percent does not make clenching my fist more intentional than hitting the bull's eye with bow and arrow, just because the former is standardly conceived as an easy task and the latter is not. If, on the other hand, I am indeed

Objective probability captures whether a certain action intended by an agent reliably comes to pass. As such, it is objective probability, not the agent's confidence, that determines whether we deem an action intentional or not. It is suggested that the same type of probability also determines whether we are willing to consider an agent's belief about his action in progress justified.²⁸ The strong relation between intentionality and knowledge in action postulated by Anscombe can thus at least partially be accounted for by the fact that both intentionality and belief justification derive from a common source—objective probability—and thus give rise to the same necessary condition. If I am able to φ reliably, and my φ -ing counts as intentional in virtue of that disposition, then what matters for justifying my belief that I'm φ -ing similarly seems to be whether I am able to φ reliably, not whether I so *consider* myself. Correspondingly, my inability to φ reliably not only undermines my claim that I was φ -ing intentionally, but also the justification of my belief that I did.

Davidson's insistence on confidence, on the other hand, is not easy to make sense of. What subjective probability tracks, if things go well, is precisely one's ability to bring about the intended action, that is, the objective likelihood of success. In the overwhelming majority of cases where the tracking works well, it is a very useful device. When it doesn't, it seems more appropriate to look to objective probability itself for justification rather than to its poorly calibrated proxy. Knowledge in action, misconceived in a way in which said proxy does play the central justificatory role, is—in line with what Davidson holds—most certainly not a necessary condition for intentional action.

In sum, Davidson's scenario, despite its clever trading on disjoint subjective and objective probabilities, does little to cast any doubt on Anscombe's epistemology of action. An externalist account of justification makes the entailment thesis not only possible, but is also considerably more plausible than an internalist approach to knowledge in action.

healed and have the usual (or similar) objective chances of clenching my fist, it's not at all clear why my pessimist attitude should be of any major epistemic consequence. The action is so simple that it is hard to believe how anyone with standard chances could *not know* that they're clenching their fist when they are, whether they are confident or not. Needless to say, if we buy into the logic of these examples, we'll have to deny all people with a naturally pessimist or skeptical disposition knowledge of much of what they are doing.

28 Preliminary experimental results confirm that 'folk' ascriptions of justification and knowledge do in fact correlate with objective probability and do not correlate with subjective probability (cf. Kneer, in prep.).

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