Tacit Knowledge Meets Analytic Kantianism

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ABSTRACT

Neil Gascoigne and Tim Thornton's Tacit Knowledge *is an attempt to find a place for tacit knowledge as "knowledge" within the limits of analytic epistemology. They do so by reference to Jason Stanley and Timothy Williamson's analysis of the term "way" and by the McDowell-like claim that reference to the tacitly rooted "way" of doing something exhausts the knowledge aspect of tacit knowledge, which preserves the notion of tacit knowledge, while excluding most of Michael Polanyi's examples, and rendering Hubert Dreyfus's and John Searle's accounts irrelevant. This is more a redefinition of terms than an account of tacit knowledge.*

Philosophers writing on tacit knowledge understand the topic in two radically different ways. One takes tacit knowledge to be a generic term for an actual phenomenon: the background to action and thought that is captured by such terms as "political tradition" and "culture," and in science by such notions as paradigm, and beyond this, such things as laboratory skills and skills of many other kinds that can't be reduced to verbal instructions, such as the knowledge of a good manager or of the team players in an effective work group. This approach is concerned with illuminating the various forms which tacit knowledge takes. It comprises the knowledge necessary for skilled performances and skilled perception. Many of these skills are embodied: embodied knowledge that is at least in part the product of embodied cognition. Understanding these things is usually taken to be a matter for cognitive science, psychology, science studies, and social science, which all have an interest in the actualities of these performances. This knowledge that goes beyond the explicit instructions, and perhaps beyond any possible list of explicit instructions, is difficult to make sense of theoretically, and there are various ways of thinking about it, which compete in the way that ordinary explanatory theories compete.

Another way of looking at tacit knowledge is by way of analytic epistemology. This kind of epistemology is not concerned with such things as the actualities of science, and works with what philosophers call "toy examples," which are supposed to reveal intuitions against which an analysis can be tested. For this kind of epistemology, tacit knowledge is a puzzling concept, even an impossible category, because it cannot conform to the standard definition of "knowledge" as justified true belief. Nothing "tacit" can be, by definition, justified: justification is an explicit act. The problem of tacit knowledge in this approach is focused on the term "knowledge" in this very specific sense. Gascoigne and Thornton's *Tacit Knowledge* is squarely within this approach. For them "part of the challenge here is the tendency to take as one's paradigm propositional knowledge and then wonder how, given that, anything non-propositional (untellable) could be classed as knowledge" (36-37). This problem overlaps with another issue. Justification is a normative concept. For some philosophers in this tradition, the "problem" to be addressed by any consideration of man in the world is seen through the concepts in which justified true beliefs are expressed

or how these normative things relate to the world. "Concepts" are themselves understood to be "fraught with ought" or normative things, rather than empirical facts of psychology. So knowledge needs to be something normative itself, within "the space of reasons." So, to address the problem of tacit knowledge *as knowledge* requires us to address the problem of the normativity of the tacit.

Some writers on tacit knowledge, including John Searle and Hubert Dreyfus, want to bring the two approaches together, though not so much to solve the puzzle of how anything tacit can be knowledge, but to answer questions about the extent to which intentionality and normativity extend into, and can be explained by, the tacit.[1] Gascoigne and Thornton are not gentle critics of these approaches. They comment that "talk of being 'untrue to the phenomenon' is one of those irritating methodological tics inherited from the phenomenological tradition" (McDowell 2007a, 353; quoted 156). Dreyfus is described as obtuse. What the writers they object to are trying to do, however unsuccessfully, is to describe real phenomena which a theory of tacitness needs to explain. The basic strategy of their book is to deny that the proffered explanations explain anything and that anything of the sort needs to be explained. They call this "therapeutic," after Wittgenstein. At one point they discuss Dreyfus's concern with the question of "how the nonconceptual given is converted into a given with conceptual content" (Dreyfus quoted by McDowell 2007a, 349; quoted 164). They endorse John McDowell's line: "That question should be rejected, not answered" (McDowell 2007a, 349; quoted 164).

The philosophical perspective from which these problems are addressed is that of the Pittsburgh School, a group of philosophers including Robert Brandom (1994, 2002), McDowell (on whom Thornton published a book [2004]), and the late John Haugeland (1998), all influenced by Wilfrid Sellars ([1949] 1980). These thinkers fall into a category the authors call "conceptualist," but which is part of a category we can more conveniently call normativists. What these thinkers typically believe is that there is a realm called "the space of reasons," governed by normative relations; that "concept" is a normative concept, as is intention; that there is a radical difference between animals and humans, because the latter partake in the space of reasons and are bound by the normative constraints that go with reasons. There are many ancillary doctrines that go along with this, such as the idea that the norms of reason are produced or sanctioned by collective intentionality, on which they may diverge. There is a large problem for these philosophers: how does this "normative" realm relate to the real world as understood by naturalists, science, social science, cognitive science, and to the world and human action and belief that can be explained in ordinary terms? As we will see, there is an answer to this question from within the realm of the normative, so to speak, to which Gascoigne and Thornton appeal.

Normativists as a group, which is much larger and more diverse than this Pittsburgh group, disagree about almost everything related to the topic, so it is difficult to generalize about their claims, but it is possible to identify some standard argument forms.[2] Typically, they are concerned, as McDowell specifically was, to overcome the suggestion that there is something spooky about the notion that there are normative forces which work apart from the ordinary stream of explanation but nevertheless have some explanatory role in accounting for actions and beliefs. They are anti-naturalists about the actions of human beings, though they often claim to be the true naturalists, and much of what they say competes with or supplants ordinary social science and psychological explanation, though they rarely acknowledge that such explanations exist. When they do, they are hostile to them. Brandom is quite explicit in his admiration for German idealism (Brandom 2002) and his desire to re-enchant the world that was disenchanted by natural science and then social science (1994, 48-50). The idealism that influences them the most is Kant's, and when they talk about knowledge and perception, their aim is to vindicate the idea that the world of experience, the world that we cannot go beyond, is conceptually constituted for us, and thus intrinsically normative and for this reason beyond normal causal explanation.

Why is this relevant to tacit knowledge? The answer is simple: to be knowledge, for this kind of philosopher, is to be within the space of reasons. As noted, tacit "knowledge" is a problem by definition: if the definition of knowledge is "justified true belief," that is to say belief supported by a determinate and explicit reason, "tacit" means unjustified and also not a matter of "belief" in the usual sense, which is consciously held belief. So tacit knowledge, if it is to count as knowledge at all, needs to be slipped into a larger conception of the conditions of justified true belief, in a supporting role. For thinkers who do not share this particular definition of knowledge, or this particular form of normativism and Kantianism, there is no need for arguments of this kind: there is an actual phenomenon that needs to be understood theoretically. The same holds for the terms used by these philosophers. There are philosophical concepts of "concept" and the psychological facts about cognition that the term "concept" is supposed to cover. There is no necessary connection between the two. Similarly for rationality: there is the normative conception and the one that explains how people actually think. "Naturalists" typically think that once one has explained what actually happens there is no additional fact to be explained; one can have a normative theory of rationality, for example, but it adds nothing to the explanation of how people think. Normativists reply that whatever it is that psychologists explain, it is not "knowledge" in the true sense, but merely something like behavior. Similarly for rationality, concepts, and the rest. Naturalists are claimed to have "changed the subject" and thus do not explain "knowledge" but something else.

This long prolegomenon is necessary because some of the main points of contention relate directly to the tacit/explicit distinction. If concepts constitute reality for us, what produces conceptual change and learning? The image of people trapped within conceptual schemes does not allow for it, or even for much novelty in scientific discovery. Where do these concepts come from? If all we can perceive is via concepts, how do we get them in the first place? The slogan that McDowell uses, following Sellars, which deals with this kind of question, is: "conceptual capacities are not merely natural, but acquired along with acquiring mastery of a language" (McDowell 2003, 76; quoted 159). So there is a special normative admixture or layer that comes along with language and conceptualization. But this is not an empirical claim, despite appearances: "conceptual capacities" is not meant here in a psychological sense, but in the special normative and Kantian sense of "concepts" employed by this school. Normativists or conceptualists generally argue "transcendentally," to the effect that something we accept as happening, once it is described in the way the normativist favors, presupposes concepts or norms. In the case of knowledge, the normativist description presupposes, by definition, "justification," and thus a normative rather than a psychological concept of justification. But this kind of argument only works when one is starting with something explicit to transcendentalize. The tacit as such is left to psychology.

The Puzzle of Tacit Knowledge Defined and Solved

This is background to understanding the puzzle Gascoigne and Thornton attempt to solve: is there anything in the category "tacit" that is "knowledge," that is to say knowledge in the special sense of a normative rather than a psychological fact, and that is also *personal* knowledge, in some sense akin to Polanyi's? They approach this problem by considering three propositions:

PC All knowledge can be fully articulated, or codified, in context-independent terms.
PI There can be knowledge that cannot be articulated.
PA All knowledge can be articulated, either in context-independent terms or in context-dependent terms. (16)

For there to be such a thing as tacit knowledge, as they understand the problem, they must resist two very powerful lines of argument, "the naturalistic and Platonic," which "pull in different directions: the former towards a reductionism that would favor PI and the other towards the sort of intellectualism that

supports PC" (24). For them, "the question is: can this tension be overcome in such a way that it gives us a satisfactory account of tacit knowledge *qua* personal knowledge" (24). This drives them to a version of PA which they think allows for such an account.

The argument develops from an extended discussion of Gilbert Ryle's distinction between knowing how and knowing that (Ryle 1945-46). Gascoigne and Thornton are impressed by a critique of this distinction by Jason Stanley and Timothy Williamson (2001) who claim that knowing how can be assimilated to knowing that. The argument is that knowing how is thus not a separate category of knowing because one can say things like this: "That is the way to ride a bicycle." The reasoning here is that this is a statement; it is explicit; thus knowing how to ride a bicycle is, in some sense, a case of knowing that.

This may seem pretty trivial, indeed, merely a verbal solution to the problem of understanding tacit knowledge. We don't know what a "way" is, even if we can recognize the surface manifestations of a particular one when it is pointed out to us. One might conclude that the "analysis" of "knowing how" into "knowing that" statements leaves something out, namely the crucial things we would like to know about knowing how. This is where Gascoigne and Thornton find inspiration in McDowell. McDowell faced a parallel problem about non-conceptual knowledge. If we see a particular color, but it is a shade we have no word for, it seems that we know what the shade is, and could recognize it if we saw it again. This seems to mean that we do have non-conceptual knowledge and that is also non-linguistic. McDowell denies that there can be any such thing. Language and concepts do not leave anything left-over to fall into the category of non-conceptual content. As he says:

> In the throes of an experience of the kind that putatively transcends one's conceptual powers . . . one can give linguistic expression to a concept that is exactly as fine-grained as the experience, by uttering a phrase like "that shade" (McDowell 1994: 56-7).

"That shade" is not "codifiable" in the sense that one could call a paint store and ask for it without providing them an example—as you could ask for a can of "flat white." The designation is context-dependent. Yet it exhausts the experience: you can't add anything to it that would give more information about it, even if there was a named color that corresponded to the shade. That would codify it, but add nothing factual about the shade itself.

One is reminded of Bertrand Russell's remark that "I" was the most ambiguous word in the English language because it referred to something different every time it was uttered. Similarly, statements like "That is a way to ride a bicycle" need a "context" and are "demonstrative," since the "way" needs to be pointed out and recognized. Our knowledge here is conceptual, but it is "personal" in this sense: the pointing out is based on personal knowledge that enables the speaker to make true demonstrative statements about the "way" or the shade. And if it succeeds, it conveys content: the person to whom the sentence is said can recognize the shade, or the way to ride a bicycle. Because this knowledge can be put into a sentence, even though it is one that is context bound and therefore not codifiable, it represents a kind of knowledge that is a bit like the kind of knowledge that one has when "one knows more than one can say," if we fiddle with the definitions a bit, to replace "say" with "say in a codifiable way." It is personal because the meaning is tied to a personal act of demonstration.

This slight rearrangement of the concepts gets them over the initial hurdle: showing that there is something in the category. But does this something correspond to anything like what tacit knowledge was supposed to be? Gascoigne and Thornton argue that it does correspond with a very important part of what tacit knowledge has been supposed to be: a regress-stopper. The problem with "justification" is that justifications need to end somewhere. Gascoigne and Thornton identify the dilemma posed by these

regresses as follows: "if knowing how is to be understood in terms of the application of propositional knowledge in concrete circumstances then either the rules for the application must be propositional in form (inviting a regress) or no such rules are required in which case know-how is a cognitive primitive" (46). The question then becomes: what stops this regress? The familiar form of this problem, for the realm of the normative, involves rule regresses. If one claims that actions are done according to a rule, one may ask for the rule governing the application of the rule, and ask for the rule governing this rule, and keep doing so ad infinitum; rules are not self-applying. This problem was one of the main motivators for Searle's revision of his early views, because, from the point of view of cognitive science, a brain could not be modeled as a rule-applying machine because such a machine would loop into an infinite rules regress. Thus what he calls "the Background" has to consist of something different than rules. Brandom and others think that "practices" are regress-stoppers, at least for linguistic rules. "Practices" are somewhat mysterious objects. But here we have a mystery for which tacit knowledge seems to be the answer.

From Wittgenstein, read in a Kantian way, we can extract a transcendentalized form of this problem, in the question "what makes the application of a rule possible?" Rule application does seem like a case in which the "ways" idea is helpful: there are "ways," right and wrong, and nothing beyond recognizing the way itself as a justification of the rightness of the way. The version of this problem in Kant is "how do the categories determine the manifold by making it intelligible?" As Gascoigne and Thornton explain it, the answer is through the intervention of schemata: products of the imagination that constitute rules for "determining our intuition in accordance with such and such a general concept" (Kant [1781] 2003: Al41/B180; quoted 26). For Kant, there is no question here of asking what rule governs this rule: it is a "secret art residing in the depths of the human soul" (Kant [1781] 2003: Al41/ B180-81; quoted 26). By definition, this would not be codifiable, for a codifiable rule would just continue the regress: we would still need to "know" how to apply it. But this "art" needs to be linguistic and conceptual, in order to be knowledge, or to be within the space of reasons. Gascoigne and Thornton's problem is to get it there.

The problem is to make this rule which is not a rule into "knowledge." Knowledge has to be knowledge of something. So what is the something for tacit knowledge to be knowledge of? What is the *content*? Gascoigne and Thornton return to the argument they took over from Stanley and Williamson to get an answer to the question of what the content is:

> Suppose that Hannah does not know how to ride a bicycle. Susan points to John, who is riding a bicycle, and says, "That is a way for you to ride a bicycle." Suppose that the way in which John is riding a bicycle is in fact a way for Hannah to ride a bicycle. So, where the demonstrative "that way" denotes John's way of riding a bicycle, (28) seems true: (28) Hannah knows that that way is a way for her to ride a bicycle (Stanley and Williamson 2001, 428; quoted 63).

Stanley and Williamson take this to be an example of knowledge how that can be expressed as knowledge that, but under a "practical mode of presentation," meaning that the "content" is identified through something like pointing out. As Gascoigne and Thornton explain, "the idea is that a demonstrative indication of a *way* of riding can carry the content that is known in such a case" (63).

"Content" and "known" are terms of art in this kind of philosophy: "content" is normally that which is conceptualized, "known" means justified true belief or something like it.[3] In this case John doesn't need to know anything about any "content" to ride a bicycle perfectly—he need not know that what he is doing is a "way" or indeed have any beliefs at all. Although Stanley and Williamson do not put it this way, their account implies that John can be a chimpanzee, even though, by definition he cannot have knowledge because he cannot be in the space of reasons. In short, what has normally been thought of as tacit

knowledge here, the embodied skill, is not the content at all. The "content" of the "knowledge" is limited to whatever is being conveyed by the demonstrative "That is a way to ride a bicycle." It is conceptual, because "way" is a concept, and indicating "that way" exhausts its content.

Gascoigne and Thornton demur from this interpretation in some respects. They think that the knowledge Stanley and Williamson's account gets you is *theoretical* practical knowledge, which they do take to be a form of knowledge of the tacit. But Gascoigne and Thornton recognize that this is not what the concept normally means. Their response is to deny that this disconnection between knowledge and ability holds generally. "Irina knows how to add," for example, seems to imply that she can actually add (66-67). This move finally gets us to something significant.

The obvious application for this kind of ability that can be recognized and where one can say "she knows how," is to the problem of mathematical rule-following made famous by Wittgenstein and Kripke.[4]

> Kripke's reading of Wittgenstein's argument suggests the following central role of a tacit dimension underpinning the conceptual order. The content of a rule cannot be made explicit. It cannot be reduced to any finite examples, nor to the grasping of any symbols. Nor does it consist in the dispositions of individuals or communities to make particular judgments. Nevertheless, individuals whose judgments or actions do not diverge from that of a community can be deemed to have mastery of a rule or to have grasped a concept. But such mastery or grasp is not guided by anything that is explicit to them. It is not encoded in their mental states, for example. Thus such understanding seems clearly tacit. Of necessity, it transcends anything that can be made explicit. It is essentially implicit (95-96).

This gives us something beyond mere recognition of a way that is *like* knowledge, namely "understanding." But is it "knowledge"? It is, in the appropriately Wittgensteinian-Kripkean sense, if we add in a few elements. They do so in several steps. The first is to connect meaning recognition to practical competence:

> Wittgenstein's regress argument balances what is explicit in explanations of meaning with what is tacit in the sense of situation-specific practical ability. To grasp the meaning of a word is to have a potentially unlimited competence in its use even if it is explicable, to those with eyes to see, in finite and particular explanations. But such grasp of the meaning involves the recognition of any particular use that *that!* use is correct, accords with its meaning. Such recognition is a context-dependent demonstrative thought which accords with what we take to be the most promising understanding of what is tacit (176-77).

So out of recognizing meaning, we get "context-dependent demonstrative thought." This counts as "personal" and includes the elements of skill and having eyes to see, thus bringing together the personal and the practical. Now the problem is to make it an object of linguistic expression:

> The equation of "personal" and "practical" flags the fact that such knowledge can only be articulated practically and from within. It requires not just a context, which would be sufficient for context-dependent spectator knowledge, but also a skilled agent both to perform the practical demonstration (in the role of the teacher) and also to have "eyes to see" the import of the demonstration (as the "learning-ready" pupil) (167).

"Practical" thus means there is a "skilled agent" who can see the "import" of the demonstration, not merely recognize it as a "way."

This notion of practical knowledge gets us something that is not codifiable, and therefore not a case of propositional knowledge. But we still face "a by now familiar dilemma, [that] such a conception may merit the description tacit but only at the cost of failing to count as knowledge" (176). The problem here is that what is being transmitted still seems to be no more than knowledge of something as a "way," although it is knowledge that has practical import for the skilled agent. And this raises a question about the content. The claim they want to make is this: "Although we know more than we can tell, we can articulate, and hence (in principle) transmit to others, all that we know" (189).[5] The "all" is the critical word here. What we can transmit is recognition, which will be different for the skilled agent. The skilled agent's ability itself is another matter, which may help with recognizing a "way," but which is itself quite different from the capacity to recognize a way. The "all" does not include it.

This is the trade-off that needs to be accepted to accredit this kind of personal, context dependent, demonstrable stuff as knowledge: we give up what was formerly thought of as tacit knowledge, but retain a part of it, which *can* count as knowledge, and specifically as personal knowledge. How much we are giving up is acknowledged:

> This may sacrifice (the reductive) part of the "natural" aspect of tacit knowing that Polanyi wished to preserve through the connection with the abilities of animals, and as a consequence render largely irrelevant most of Polanyi's empirical examples. But it gives more traction to the notion that tacit knowing is in some sense personal knowing (31).

Limited in this way, we can solve the problem of tacit knowledge as knowledge.

> Tacit knowledge might indeed be described as unformulated or untellable. But that is not because we cannot say or tell how we do something or how we know something... Rather, it is because the knowledge we have of something when we are doing it is knowledge-how, and knowing how is untellable in the limited sense that it cannot be articulated in depersonalized, context-independent terms (31).

There is no mystery about these demonstratives. They fall between the categories of codifiable and ineffable. And thinking that these were the only options is where they think Polanyi goes wrong:

> Accordingly, the mistake Polanyi makes is to conclude that because something is untellable in the sense that it cannot be codified and is thus not subject to PC it must as a consequence fall under something like PI. That implies that putative untellability gestures towards something hidden, mysterious or ineffable and in turn shapes his particular, unworkable version of naturalized Platonism (31).

They thus preserve the idea that everything that is "knowledge" is tellable, albeit not codifiable, but dispense with what normally is thought of as tacit knowledge, namely embodied skills and habits of mind, as well as the as yet unarticulated ideas struggling to be articulated. These are Polanyi's examples. The fact that they can be transmitted as something that can be recognized, the "way," like the shade of color, rather than the embodied content of the way, comprises the "knowledge" part of all of this. The rest is outside of the space of reasons, the conceptual, and the tellable.

Searle and Dreyfus: The Problem of Getting to Concepts

There is a general problem here, which one finds throughout the normativity literature, and which is behind a number of the issues which Gascoigne and Thornton take up in relation to Searle and Dreyfus. The problem arises for all terms which are supposed to have, or are taken to have, a normative character,

including rationality, concepts, intelligence, intentionality, correctness, and so forth. If one is committed to the idea that there is something intrinsic to these concepts that prevents them from being understood and described as natural facts, and that only humans have these things, one is faced with problems about when they begin, how a person moves, for example, from an infantile pre-normative state to a normative one, and how animals that are in a normative state, namely humans, evolved out of animals that are not. To the extent that the normative concepts in question are local norms, such as the norms of a given language, the problem is quite precise: one must explain how a non-normative infant, making and responding to utterances, turns into a normative being. Learning the language can't be the answer: learning is a psychological process, and in this sense non-normative. The learning done by a child can't be guided by the relevant norms if the norms themselves can't be learned. But learning, for example by trial and error, does not involve anything that adds normativity. If the normative concepts are non-local or generic ones, such as intelligent embodied coping, one faces different issues, notably the problem of distinguishing animal coping from human coping. McDowell insists that the human sort of coping is "permeated with rationality" which is unlike that of animals (2007a, 344). These are not normal empirical claims, but involve mysterious processes or outright fictions, such as McDowell's claim that at some point a child comes to recognize the normativity of reason.

Gascoigne and Thornton are highly critical of Dreyfus's and Searle's solutions to these problems. Both solutions work by pushing the problem of explanation back to some supposed prior capacity, such as intelligent bodily coping in Dreyfus, or in Searle to a tacit "Background" together with normativizing capacities.[6] Dreyfus proposes a two-level model in which coping comes before and is a condition of explicit conceptualized perception, thinking, naturally, that novel perceptions without concepts have to be possible in order for change, among other things, to occur.[7] This parallels Polanyi's idea that all knowledge is either tacit or based on tacit knowledge. Searle makes a similar move, in invoking the Background as a condition of explicit knowledge.[8]

There are, however, nuances to these views, notably about when intentionality comes in. Dreyfus and Searle, reasonably, give the tacit a kind of preconceptual intentionality, which opens the door to a counter-argument that intentionality is always already normative and conceptual. In McDowell we get an explicit version of this counter-argument, in terms of the form of normativity that he attributes especially and exclusively to humans, practical rationality. This normative stuff permeates even unreflective embodied coping, according to McDowell:

> I do not have to ignore embodied coping; I have to hold that, in mature human beings, embodied coping is permeated with mindedness. And that is exactly what I do hold (2007a, 339).

What makes these "permeate" claims interesting is the way they interact with the refusal to answer explanatory questions that characterizes McDowell's normativism and many other versions of normativism. Here the argument works like this: there is nothing to explain about how one acquires practical rationality, mindedness, normativity, intentionality, and so forth, because it is always already there in every form of coping that humans do. Moreover, and this is a point reiterated by Gascoigne and Thornton: there is something distinctively and exclusively human here, *contra* Polanyi and Dreyfus. McDowell conceives of this distinctive thing in terms of "openness."

> What is in question between Dreyfus and me, once we are focusing on that aspect of what perception does for us, is precisely whether our perceptual openness to affordances, which I agree is necessarily bound up with our embodied coping skills, is permeated with rationality. That cannot be set aside as something we need not go into. I do not

dispute that perceptual responsiveness to affordances, necessarily bound up with embodied coping skills, is something we share with other animals. And I can accept that there is a sense in which familiarity with affordances is a background for our openness to objects. But I can still hold that our openness to affordances is part of the way of being that is special to rational animals (McDowell 2007a: 344).

What he has in mind here is this:

> when our embodied coping skills come to constitute a background for our openness to the world, the openness to affordances that is an element in what it is for us to have embodied coping skills becomes part of our openness to the world. Openness to affordances draws on the rationality of subjects who are open to the world just as much as any other part of openness to the world does (McDowell 2007a, 345).

So if one concedes that openness is uniquely human, then it too is permeated with a specific sort of distinctly human rationality.

An interesting aside to this argument involves the phenomenology of action in the case of expert performers, one of Dreyfus's long-standing interests. For Dreyfus, these are cases of action beyond rule following, which are different in character. When expert baseball players throw to first, presumably they are not making any rational calculation or conceptualizing: they are performing habitual actions that they have practiced endlessly so that they are performed without the slow brain. Moreover, expert performers feel this as part of the flow of the game, or performing, not cogitating. As Dreyfus puts it, "expert coping . . . [is] direct and unreflective, which I take to be the same as being nonconceptual and nonminded" (Dreyfus 2007a: 354; quoted 157). Dreyfus and McDowell discuss the case of a second baseman named Chuck Knoblauch, who couldn't throw to first if he thought about what he was doing (Dreyfus 2007a & b, esp. 2007a: 354; McDowell 2007b). This is the kind of difference Dreyfus wishes to capture, which is a signal of the difference between tacit and non-tacit. McDowell's response is that the action is already permeated with practical rationality and already conceptual.

> When Knoblauch still had the bodily skill that he lost, his mindedness was in operation in exercises of his skill. His throwing efficiently to first base was his realizing a concept of a thing to do (McDowell 2007b, 367).

For McDowell, the example shows nothing other than "when mindedness gets detached from immersion in activity, it can be the enemy of embodied coping" (2007b, 367).

The effect of these "permeate" arguments is that there is never a moment "before" the conceptual (or after, in the case of the expert) and therefore no transition to explain. So refusing to explain is merely to refuse to explain something that we have to accept as already part of the supposed foundational or background stage. Dreyfus responds by noting that "current neurological models of skilled action, (such as actor-critic reinforcement learning models) . . . claim that consciousness is only called into action once the brain has detected something going wrong" (Dreyfus 2007b, 377 n4). McDowell would respond by saying that consciousness is not necessary for an activity to be permeated with rationality, mindedness, intentionality, normativity, and so forth. Needless to say, there is nothing in McDowell about any of the distinctions marked out by phenomenology or experimental cognitive science. His is an exercise in definitions, and there is no additional empirical question raised or resolved by defining practical rationality as permeating anything. But McDowell recognizes that there needs to be some sort of empirical story here, and occasionally gestures to notions of developmental psychology and evolution before returning to narrowly philosophical sources.

Gascoigne and Thornton distance themselves from McDowell's gestures to the empirical. But they endorse McDowell's idea that the questions Searle and Dreyfus want answers to are questions that should be rejected. They articulate it as an argument that Dreyfus's and Searle's explanations explain nothing about what Gascoigne and Thornton have established is the content of tacit knowledge, which, as they admit, also eliminates Polanyi's examples. This rejection follows directly from the definition of knowledge as a specific kind of normative fact, not from any empirically relevant concept of knowledge.

What is the Picture?

How do all these arguments fit together, and what picture of tacit knowledge are we left with? A summary is in order. Start with "knowledge." If we go a little bit beyond the propositional model, which Gascoigne and Thornton associate with codification and depersonalization, we do have something that can be called knowledge, on the model of McDowell's "this" in identifying a color. Knowledge has to be knowledge of something, meaning that it has to have content. To have content is to be conceptualized. It also needs to be answerable. We have demonstrative sentences that refer to practices: "That is a way for you to ride a bicycle" and the conclusion, "Hannah knows . . . how to ride a bicycle" (63). That gets us what we need. There is content, namely the way to ride, it is conceptualized, it is a demonstrative sentence, so the content is expressible and thus effable. It is "context-dependent but still conceptually articulated personal knowing how" in the following sense: it is not codifiable, any more than McDowell's "this;" and like McDowell's sentence, we can say that it is "tacit" knowledge in this sense: "because it cannot be put into words independently of a context." It is knowledge because it conforms with the "*Principle of Articulacy*:"

> PA   All knowledge can be articulated, either in context-independent terms or in context-dependent terms (126).

Thus we have found something in the category of tacit knowledge, with tacit and knowledge both (somewhat, or radically, depending on one's tastes) redefined.

What does this have to do with Polanyi? Gascoigne and Thornton refer to various parallels throughout the text, but a lot hinges on the claim that demonstrative knowledge is personal, requiring "'eyes to see' the import of the demonstration" (167). What is actually transmitted by these demonstratives is not knowledge that enables one to ride a bike, but the capacity to recognize a "way" together with its "import." This gives a very specific and limited significance to the claim that "Although we know more than we can tell, we can articulate, and hence (in principle) transmit to others, all that we know" (189). The issue is the "know": the thing transmitted is no longer what Polanyi or anyone else thought tacit knowledge was, but something much more limited—that which is not, as they put it, quoting Wittgenstein, "hidden." This is what warrants their claim that "tacit knowledge can be articulated without remainder" (192). What counts as tacit knowledge is thus something far more limited than normally understood. This is indeed "a more svelte and amenable Polanyi" (37), which is what they wanted to produce. But it is amenable primarily to a very specific philosophical position, namely that of McDowell and his confreres.

Their project makes sense for this very specific purpose. And it must be said that Gascoigne and Thornton achieve the aim they set for themselves. From another point of view, it is something different, and something very common in philosophical argumentation: an attempt to resolve a conflict that appears insoluble in some standard terms by changing the terms and providing a solution to a restated and different problem. From this point of view, they have re-labeled something explicit, namely demonstrative talk of "ways," as tacit, and called this thing, "tacit knowledge."

Gascoigne and Thornton talk about being answerable to the world, and of course tacit knowledge as traditionally understood *is* answerable to the world in very specific ways. The fielder throwing to first base does not merely act according to some sort of inner disposition untouched by the world. Far from it: the whole point of practice is to receive the tacit feedback of making the throw to the target in order to improve habits and instill the right dispositions for the task. And what holds for this purpose-oriented habituation also holds for habituation generally. Habits are formed from feedback. They are thus "accountable to the world" in whatever factual, non-normative sense can be given to the normative notion of accountability. Gascoigne and Thornton sharply distinguish habits and dispositions from knowledge and then dismiss habits and dispositions as irrelevant to the problem of tacit knowledge because they are non-conceptual and therefore without content. But doing this tells us nothing empirical about the difference between habitual throwing and conceptualized throwing, because there is no empirical difference. Insisting that feedback is not real accountability, because accountability is a normative concept, which is how normativists would respond, merely shows that accountability is not an empirical concept.

This argument is clear. But writers like Searle and Dreyfus typically muddle the issue themselves by extracting something from the tacit to support their own larger philosophical purposes. In the case of Searle, it has been the notion of "conditions of satisfaction" (1983: 145; 1992: 238-39) which he thinks can be traced to fundamental roots in the Background, and then be used to justify claims about the normative character of explicit thought. One can see how this goes: even feedback loops of the sort involved in learning require some threshold of results to be a positive feedback loop. But claiming that facts like this can be built into a general theory that justifies an elaborate social ontology, as Searle does, leaves hostages to fortune, and opens him to responses like McDowell's, that rationality of a specifically human kind permeates human action from the start. Dreyfus opens himself up to analogous arguments by using Heideggerian language which allows McDowell to insist that concepts and some sort of distinctive human rationality is always already there in whatever activity Dreyfus is describing. Gascoigne and Thornton are right to object to Searle and Dreyfus on these grounds. But their real flaw is that their arguments are too much like those of McDowell in the first place.

A few other cautionary comments on this project are justified. Many philosophers reject as mere dogma such theses as the claim that there is no world that is experienced other than through linguistic concepts. For them, this is just linguistic idealism. Similarly, animals obviously share our world, share many of our means of accessing the world, are capable of such things as joint attention (which is all that "recognition" is in the examples used in the book), and of learning. Arguments that animals do not have these things have a steep hill of fact to climb. Philosophers of this school typically claim, for example, that animals have no intentions. As the ethologist Frans De Waal says, "'Sometimes I read about someone saying with great authority that animals have no intentions and no feelings, and I wonder, 'Doesn't this guy have a dog?'" (Dreifus 2001). It is not enough to redefine concepts to suit one's philosophical prejudices, if these are also concepts with a life in the real world.

A similar point about philosophical method might be made about transcendental arguments and regress arguments of the sort that figure in the text. They have an unhappy history, to say the least: genuine transcendental arguments are supposed to exclude the alternatives. The whole history of these arguments, from the neo-Kantians to the Pittsburgh school itself, is one in which alternative competing transcendental claims have been generated, with no way to decide between them. Similarly for notions of normativity: the sheer variety of claims of different kinds of "normativity" is astonishing. Making Polanyi amenable to one, very implausible, account of normativity, is an intelligible project, but one with limited significance.

Gascoigne and Thornton try to avoid the implausibility of McDowell's general philosophical claims by rejecting his "empirical" or rather pseudo-empirical claims in favor of what they take to be a thera-

peutic approach. The strategy, a common one in the normativist literature, is to have one's cake and eat it too: to appeal to a problematic notion, like "practice," without facing the problems with it.[9] What they mean by "therapy" is better expressed by McDowell when he rejects questions, which amounts in each case to denying that something needs to be explained. This is not Wittgensteinian therapy, which involves assembling reminders to prevent language going on a holiday.

The notion of knowledge in play here, which is derived from analytic epistemology, has little to do with Polanyi, who thought science produced beliefs with an element of faith, not beliefs that could be "justified" in the absolute sense. To restrict one's notion of knowledge to justified true belief and then extend it to the tacit, as Stanley and Williamson do, manages to miss all of the interesting problems with the tacit—the idea of embodied cognition, the idea of extended minds, and much more. For most of us who are philosophers of science, what we care about are real cases in science, as Polanyi did, cases in which the claims of science are fallible, dependent on a complex supportive social world and traditions. As I noted in the opening paragraph, this "explanatory" approach diverges radically from Gascoigne and Thornton's. So does the notion of knowledge with which it is associated.

ENDNOTES

[1] Dreyfus has been concerned with aspects of these issues for decades, notably in *Mind over Machine* with Stuart Dreyfus (1986), *What Computers Still Can't Do* ([1972] 1992), and his writings on expertise, "From Socrates to Expert Systems" with Stuart Dreyfus (1985) and "What is Morality?" with Stuart Dreyfus (1990)**,** but most recently in debates in "Overcoming the Myth of the Mental" (2005), "The Return of the Myth of the Mental" (2007a), and "Response to McDowell" (2007b). Searle's views on tacitness appear in his discussions of what he calls "the background," which evolved out of his initial writings on social life as undergirded by tacit rules in *Speech Acts* (1969), a position he recognized as untenable, and revised, notably in his 1983 *Intentionality*, which introduces the notion of "the Background" to a "Network" made up of a mixture of conscious and unconscious intentional states. This was further elaborated in the 1990s in such books as *The Rediscovery of the Mind* (1992), and extended to social explanation and ideas about collective intentionality in a 1990 chapter, "Collective Intentionality and Action." These new ideas were synthesized into an extensive account of the social, first in *The Construction of Social Reality* (1995) and revised in *Making the Social World: The Structure of Human Civilization* (2010).

[2] I should declare my own interest here. I have a book dealing with both the argument forms and the history of this problem, *Explaining the Normative* (2010). The book is critical of normativism, and of the many argumentative tricks needed to sustain it.

[3] "Content" is an important term in normativism, meaning "conceptual content." This raises the question of whether there could (or must) be non-conceptual content. The question is the subject of a large literature that parallels and interacts with the tacit knowledge literature. For examples, see Cuzzins, "Content, Conceptual Content, and Nonconceptual Content" ([1990] 2003).

[4] See Wittgenstein, *Philosophical Investigations* (1953) and Kripke, *Wittgenstein on Rules and Private Language* (1982).

[5] See Polanyi, *The Tacit Dimension* ([1966] 2009, 4).

[6] The evolution and point of Searle's claims up to 1995 are discussed in my 1999 review of *The Construction of Social Reality* (Searle 1995). Their most recent form is discussed in Paul Roth's 2012 review of *Making the Social World: The Structure of Human Civilization* (Searle 2010).

[7]Dreyfus calls this "a ground level floor of preconceptual, preobjective/presubjective, prelinguistic coping" (2007a, 364).

[8]Searle uses the language of "permeation" as well, but to make the exact opposite point: that the workings of conscious intentional states are permeated with the "Background," "since without the Background the states could not function" (1983, 151).

[9]Some of which, such as what I have elsewhere called the Maussian problem, go to the heart of the claim that ways are recognizable objects free of the problem of nature and culture (cf. Turner 1994, 19-24).

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