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ARTICLE



Wittgenstein on the duration and timing of mental phenomena: episodes, understanding and rule-following

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ABSTRACT

Wittgenstein's later works are full of questions about the timing and duration of mental phenomena. These questions are often awkward ones, and Wittgenstein seems to take their awkwardness to be philosophically revealing, but if we ask what it is that these questions reveal then different interpretations are possible. This paper suggests that there are at least six different ways in which the timing of mental phenomena can be awkward. By identifying these we can give sense to some of Wittgenstein's more cryptic remarks, and doing this enables us to clarify some obscure elements in his picture of the mind, including the distinction between sensations and feelings, and his account of the rational status of those processes out of which rule-following is built.

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Among the collected remarks that were eventually published as *Zettel* (Wittgenstein, *Zettel*), there are some that resist interpretation. In Anscombe's translation (and with her parenthesis), one such passage reads:

The psychological verbs to see, to believe, to think, to wish, do not signify phenomena [appearances]. But psychology observes the phenomena of seeing, believing, thinking, wishing.

(Wittgenstein, *Zettel*, §471)¹

Some readers take these hard-to-interpret remarks to be expressions of hard-to-articulate insights; others take them as evidence that Wittgenstein's contempt for the need to make himself understood had been too much indulged by his acolytes. The contention of the present essay is that sense can be made of these remarks. To see it, we need to disentangle several ideas that are

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¹'Die psychologischen Verben sehen, glauben, denken, wünschen bezeichnen nicht Erscheinungen. Aber die Psychologie beobachtet die Erscheinungen des Sehens, Glaubens, Denkens, Wünschens.' All citations are to *Zettel*, except where indicated.

suggested by the passages in which Wittgenstein enquires into the temporal peculiarities of mental events and processes.

1. Questions about time of occurrence

Wittgenstein raises questions about mental entities throughout his post-*Tractatus* writings. In *Zettel*, these are often questions about the entities' time of occurrence. In §§20–6 of *Zettel* we are asked *when* we meant a certain person by our utterance of his name (cf. §§135–7 of *Last Writings*); in §74 we are asked 'At what moment of translating do I *understand* the sentence?' (cf. §12 of *Philosophical Grammar*); in §78 we are asked *for how long* we have been hoping that something would happen (cf. §2 of *Last Writings*); in §324 we are asked whether the sense of multiplication is grasped *before or after* the child learns to multiply (cf. §366 of *Philosophical Investigations*). In §82 we are told:

Think of this language-game: Determine how long an impression lasts by means of a stop-watch. The duration of knowledge, ability, understanding, could not be determined in this way.

Wittgenstein is not explicit about what he takes the significance of these questions to be. That may have been due to his desire to avoid building a theory. It might also have been that he had no settled opinion about their significance. Questions about timing can be found among the remarks that he appended to the typescript of the *Philosophical Investigations*, and among the remarks that he struck out in the palimpsest of revisions and reformulations that is now known as *The Big Typescript*, TS 213. The collection of notes that became *Zettel* was the product of one phase in this reformulation process. On restoring one of these deletions to the indicated place – the *Typescript's* editors include them in a footnote – we find an exchange between Wittgenstein and his imagined interlocutor that reads:

'I meant something specific when I said ... ' ~~When did you mean it and how long did it take?~~ And did you mean something different as you got to each word, or the same thing throughout the entire sentence.

(Wittgenstein, *The Big Typescript*, 120e)

Whatever his final opinion of their significance, these questions of timing seem to be asked in the expectation that we will struggle to provide satisfactory answers, as Wittgenstein himself seems to have struggled, and they seem to be asked in the expectation that we will take this struggle to indicate that something is amiss in the ways in which we have been thinking about the entities in question. Those expectations are left unstated by Wittgenstein, but they are clearly on display when Ryle argues in a similar fashion, in some of the more Wittgenstein-inspired phases of his work.

Ryle's 'first objection' to 'the Myth of Volitions' is delivered via a series of awkward questions, many of which are about matters of timing:

By what sorts of predicates should they [volitions] be described? Can they be sudden or gradual [...]? Can I do two or seven of them synchronously? [...] At which moment was the boy going through a volition to take the high dive? When he set foot on the ladder? When he took his first deep breath? When he counted off 'One, two, three – Go', but did not go? Very, very shortly before he sprang?

(Ryle, *The Concept of Mind*, 63)

Although these questions admit of no easy answers, it is not clear that their awkwardness reveals anything important. It is especially unclear whether it shows the entities in question to be problematic or (as Ryle would have it) mythical. The fact that awkward questions can be asked about the relative onset of chickens and eggs gives no reason to suppose that those entities are mythical. If questions about the timing of mental phenomena are to be more significant, that significance needs to be spelled out.

The lessons that are to be extracted from the difficulty of answering such questions might be semantic, epistemic or metaphysical, or they might be some more distinctively Wittgensteinian amalgam of these. That difficulty might be taken as revealing some flexibility in the denotations of our psychological language, with the consequence that such language is unsuited for analysis along the lines that had been recommended in the *Tractatus*. It might be taken to originate in the limitations of our epistemic position with regard to mental entities, and so might be taken as showing us to need 'outward criteria' for the justification of our beliefs about those entities. It might also be taken to originate in the shady ontological status of the entities about which we are being asked, in which case it might be thought to show that we have been mistakenly reifying what ought not to be thought of as a thing.

Faced with such underdetermined matters of interpretation, some of Wittgenstein's current readers are more tolerant than others. Some take his questions as pointing in the direction of an important set of philosophical problems (while leaving it to us, and to the other parts of his writing, to identify the nature of those problems). Others are more sceptical and suspect that those questions point in the direction of nothing significant. The geographical distribution of these readers is not uniform. It is hard to know which faction is currently in the majority, but it is clear that the advocate of Wittgenstein's importance has a case to answer. With awkward questioning having gone out of fashion as a mode of philosophical argumentation, the significance of these particular questions needs to be shown.

This paper identifies six different reasons why questions about the timing of mental phenomena can be awkward. In some cases, this awkwardness is philosophically revealing, in ways that illuminate some of Wittgenstein's more cryptic remarks concerning the status of mental processes. These sources of awkwardness are not independent of one another. They can nonetheless be considered in turn, starting with the most straightforward, and working towards the most consequential.

2. Mere vagueness

Some phenomena are said by Wittgenstein to lack ‘genuine duration’. ‘Intention’, for example:

is neither an emotion, a mood, nor yet a sensation or image. It is not a state of consciousness. It does not have genuine duration.

(§45)

Other phenomena are said to have a duration, but one that resists measurement. In §82 of *Zettel* (quoted above) Wittgenstein contrasts ‘impressions’ with ‘knowledge, abilities, and understanding’ on the grounds that these last phenomena cannot be timed with a stopwatch.

Wittgenstein’s claim is not that ‘knowledge, ability, and understanding’ lack genuine durations. Nor would such a claim be plausible. Durations *can* intelligibly be assigned to these phenomena: Smith understood the scoring of one-day cricket matches from the time when she studied the rules until the time that those rules were changed; she knew Jones’ telephone number from the time when she looked it up until the time when an announcement of the lottery numbers displaced it from her mind. Smith herself may be in a uniquely strong epistemic position with regard to these durations. Their attribution would not require her to record any epistemically suspect private sensations, nor would it require her to consult any outwardly manifest criteria.

Since the timing of these phenomena does not seem metaphysically or epistemologically awkward, such awkwardness as it has might instead be credited to a stopwatch-user’s need for precision. The lesson to be learned from that awkwardness would then be that, like all natural language, our talk about knowledge and understanding is vague.

Although Wittgenstein does, on one occasion, remark that ‘The greatest difficulty in these investigations is to find a way of representing vagueness’ (*Last Writings*, §347), it is unlikely that difficulties relating to vagueness were the reason for his remarks about the difficulties of timing mental phenomena. He undoubtedly understood that natural languages are ubiquitously vague. Russell had argued that vagueness is present in every phrase of such language (Russell, ‘Vagueness’), and Wittgenstein himself discusses some sources for this vagueness, over several pages in the appendix to part one of *Philosophical Grammar* (236–40). In *Zettel*, he mentions the possibility of ontic-vagueness, in connection with a point about ostensive definition:

‘Heap of sand’ is a concept without sharp boundaries – but why isn’t one with sharp boundaries used instead of it? – Is the reason to be found in the nature of the heaps? What is the phenomenon whose nature is definitive for our concept?

(§392, cf. 81 of *The Brown Book*)

It is clear that the later Wittgenstein took imprecision to be an important feature of natural language and an advantageous one. Section 107 of the *Philosophical Investigations* has been read as an exhortation to respect such imprecision: 'We want to walk: so we need *friction*. Back to the rough ground!'. But – since the resistance to timing by stopwatch is said to mark a *contrast* between knowledge and impressions, both of which are denoted vaguely – Wittgenstein cannot just have been reminding himself of vagueness when raising his question about the timing of these phenomena. Something more specific seems also to have been at stake.

3. Extrinsic factors

Vagueness is not the only thing that can prevent us measuring durations with a stopwatch. Such measurements are sometimes rendered impossible by the impossibility of knowing when the watch should be started. The first heart-beat of the oldest person ever to live will not be an event that can be timed with a stopwatch, just because nobody who is in a position to know that this is to be the oldest person could be in a position to make such a timing. The winning goal in a soccer match cannot occasion the starting of a stopwatch, just because it cannot be recognized as being the *winning* goal until the match has ended; it may not even be recognizable as a goal at all until after the moment of its occurrence has passed: Additional time may be required to ensure that the ball is seen by the referee to cross the line, that the offside flag stays down, and that other necessary conditions for goal-scoring are met.

The problem facing a person who wants to time these events is not their vagueness. These are events with relatively precise boundaries, for which the stopwatch game still cannot be played. The source of awkwardness here is likely to interact with the vagueness that we have already noted, if only because language users are less likely to have established precise semantic boundaries in cases where the crossing of those boundaries cannot be recognized at the time, but the present source of awkwardness is nonetheless distinct from that vagueness. Whereas the significance of vagueness is a semantic matter, this second source of awkwardness is metaphysical. The awkwardness in measuring the time of winning goals and first heartbeats is a symptom of the fact that these events essentially depend on things that are not present when the measurement would need to be made. Since we need to wait until information about these extrinsic factors is available, our timings can only be made retrospectively, and so must be made using something other than a stopwatch.

In raising questions about the timing of knowledge and understanding, Wittgenstein may have been indicating that those phenomena depend essentially on factors beyond the time of their occurrence. As with the semantic

point about vagueness, he seems to have taken this dependence on extrinsic factors to be philosophically important. Such factors do have some significance for epistemology, especially when they are seen in the context of the epistemological work of Wittgenstein's contemporaries. In the epistemological work of Norman Malcolm, it was supposed that a person who knows something must be in a position to know that they know it (Malcolm, 'Knowledge and Belief'). Strong versions of this principle would be incompatible with the point raised by Wittgenstein's question about the timing of knowledge. If extrinsic factors play an essential role in giving one's state its status as a piece of knowledge, then the beginning of such a state may not be recognizable at the time of its occurrence, since these factors may not be in place until later. The existence of such factors is, therefore, incompatible with the claim that every moment at which a person knows something must be a moment at which they are in a position to know that they know it. This makes it incompatible with a moment-by-moment version of Malcolm's principle – the so-called KK principle – concerning our knowledge of our knowledge.

The contribution of extrinsic factors to a person's epistemic status also plays a role in some agenda-setting works from outside Wittgenstein's immediate circle, on which he nonetheless had a strong influence. When Arthur Danto derives his claim about the historical limitations of witness testimony, in his *Analytical Philosophy of History*, he does so on the basis of an argument that depends on the fact that those who were present at the onset of the thirty years war could not *then* have been in a position to assign a time to it (Danto, *Analytical Philosophy of History*, 152). Danto's point here is a Wittgensteinian one, about extrinsic factors making the assignment of a time necessarily retrospective. Arguments in the work of Thomas Kuhn also depend on points about the need to be retrospective when assigning a time to the onset of certain epistemic states of affairs, owing to their dependence on extrinsic factors. In Kuhn's case, the timings in question are the timings of scientific discoveries (Kuhn, *The Structure of Scientific Revolutions*, 54).

The influence of Wittgenstein on both of these writers is clear. Wittgenstein is one of only two philosophers to appear in the index of *The Structure of Scientific Revolutions* (the other being Popper). And for Danto the point about the need to be retrospective in our historic timings is almost explicitly Wittgensteinian. Immediately before making this point he remarks: 'The fly is in the fly bottle! The task of the philosopher is to lead it out' (151). These being works that belong to the period when Wittgenstein's *Nachlass* was circulating somewhat informally, Wittgenstein's influence on them tends not to be reflected with direct citation. A Wittgensteinian point about some timings being measurable only retrospectively nonetheless seems to have been influential in these diverse branches of philosophy. But that point does not seem to have been all that Wittgenstein's questions about timing were intended to indicate.

4. Perdurant

When ‘knowledge, understanding, and ability’ are said by Wittgenstein to resist timing by stopwatch (in §82), this is presented as a way in which they contrast with ‘impressions’ [*Eindrücke*]. Questions about the timing of these impression-like states are also raised (albeit in one of *Zettel*’s more fragmentary passages). The difficulties in answering them again lead Wittgenstein to a set of ideas that he takes to be revealingly awkward:

The duration of sensation [*Empfindung*]. Compare the duration of a sense-experience of sound with the duration of the sensation of touch which informs you that you have a ball in your hand; and with the ‘feeling’ that informs you that your knees are bent.
(§478; the ideas that result from these comparisons are declared to be ‘queer’ in §§480–1)

In raising questions about the timing of these experiences, Wittgenstein’s intention is to diagnose the metaphysical category in which they belong, rather than to cast doubt on their existence. This becomes clear in the two sections of *Zettel* to which he gives the heading ‘Plan for the treatment of psychological concepts’, and also in the remarks that are interspersed between these.² In the first of these sections, he notes:

Sensations: [...] All have genuine duration. Possibility of giving the beginning and the end. Possibility of their being synchronized, of simultaneous occurrence.
(§472)

When Wittgenstein resumes this ‘plan for the treatment of psychological concepts’, in §488, he turns from sensations to emotions. These too are said to have a ‘genuine duration’, but they are also said to have ‘a course’:

Emotions. Common to them: genuine duration, a course.
(Rage flares up, abates, vanishes, and likewise joy, depression, fear.)

This contrast between those phenomena that have a course and those that lack one has several echoes in the more recent literature. It is now common for distinctions to be drawn between ‘processes’ and ‘activities’ (Stout, ‘Processes’; Hornsby, ‘Actions and Activity’), and between ‘telic’ and ‘atelic’ processes (Crowther, ‘Watching, Sight, and the Temporal Shape’). These distinctions are taken to be important in the philosophy of mind, but the distinction that I think most closely corresponds to what Wittgenstein had in mind is that from the more purely metaphysical literature, concerning persistence.

²Wittgenstein had grouped the remarks in *Zettel* into bundles, but without there being any clear ordering between or within these bundles. The ordering of the remarks was largely the work of Geach, rather than of Wittgenstein himself. Some remarks belong together but are not adjacent.

Of those phenomena that persist, some are said by current metaphysicians to *endure* and some to *perdure* (Lewis, *On the Plurality of Worlds*, 202). A phenomenon persists by enduring if everything essential to it is present at each moment of its existence. It persists by perduring if it has a beginning, a middle and an end (or if it has some more finely articulated temporal parts), and if the instantiation of this phenomenon essentially involves properties that are distributed among these parts. Pains are understood by Wittgenstein to be entities of the first sort, as are all other sensations. These 'lack a course', being what we would now call *endurant*. In this, they contrast with emotions. The emotions, according to Wittgenstein, have a course that is essential to them, and so are what we would now call *perdurant*. Although his vocabulary is not consistent, it would seem to be this contrast between the course of emotions ['*Gemütsbewegungen*' (§488)] and the courselessness of sensations ['*Sinnesempfindungen*' (§472)] that gives the justification for Wittgenstein's claim, in §504, that:

Love is not a feeling ['*Gefühl*']. Love is put to the test, pain not. One does not say: 'That was not true pain, or it would not have gone off so quickly.'

Because the essential features of *endurant* phenomena are present in each of their temporal parts, one can already tell, during the first of these parts, that an instance of such a phenomenon is occurring. Everything essential to pain is already present at the first moment when an episode of pain begins, with the result that, if we wanted to measure the duration of that episode, we would be in a position to start our stopwatch. In contrast, the essential features of *perdurant* phenomena include facts about their several temporal parts, with the result that we may not be able to tell that an instance of some *perdurant* phenomenon is occurring when only the first part has happened. Something that is essential to an occurrence being an instance of love will not yet be present, at the time when the episode of loving begins. It is for this reason – a reason that has nothing to do with vagueness, nor anything to do with factors that are extrinsic to the duration of the phenomenon in question – that the language game with a stopwatch cannot here be played. The essential features of *perdurant* phenomena need not be extrinsic to the instances of those phenomena, in order for the stopwatch-based timing method to be unavailable; they need only be extrinsic to their several parts. Again the problem is not with the supposition that there is some fact of the matter about the time at which these phenomena begin. The problem is with knowing when to execute a process in which those times are measured.

Although Wittgenstein's claim is that *all* emotions have a course, and that *no* sensations do, this distinction is not marked by natural language so categorically. His 'analysis' must here be taken as the regimentation of a natural language distinction, rather than as an account of the way in which the words 'emotion' and 'sensation' are currently used. The case is one in which:

Our investigation does not try to *find* the real, exact meaning of words; though we do often *give* words exact meanings in the course of our investigation.

(§467)

Because Wittgenstein's later project attempts to embrace the imprecision of natural language, he faces the worry that such regimentations impose needless precision. That worry is voiced in §484 when Wittgenstein asks whether it is 'hair-splitting to say: joy, enjoyment, delight, are not sensations?'. Even if this is hair-splitting, he insists that we can 'at least ask ourselves: How much analogy is there between delight and what we call e.g. "sensation"?'.

In these passages Wittgenstein seems to set himself the task of drawing a distinction between sensations and emotions, before convincing himself that such a distinction can be drawn only on a case-by-case basis. We may be able to distinguish between instances of sensation and instances of emotion, and may be able to draw that distinction on the metaphysical grounds that Wittgenstein indicates – since some instances 'have a course', and others do not – but the general question of whether 'joy, enjoyment, or delight' belong on the sensation side of this distinction will not admit a single answer. The access of joy that one experiences on a sunny day might be enduring: it might persist for some time without having any course of development, and so might be something like a sensation, by Wittgenstein's criterion. On the other hand, one's enjoyment of a triumph might be an experience that does essentially have a certain ordering to its temporal parts. It would 'have a course', and would, therefore, qualify by Wittgenstein's criterion as an emotion. Wittgenstein treats the case of joy as one by which we can easily be misled:

'But I do have a real *feeling* of joy!' Yes, when you are glad you really are glad. And of course joy is not joyful behaviour, not yet a feeling round the corners of the mouth and the eyes.

'But 'joy' surely designates an inward thing.' No. 'Joy' designates nothing at all. Neither any inward nor any outward thing.

(§487)

This final remark might seem like a counsel of eliminativism, but other interpretations are possible. The remark's first part – 'when you are glad you really are glad' – suggests that one of these other interpretations would be preferable. Wittgenstein's point might have been that joy is not a *thing* but a disposition. It might have been that joy is not a thing in its own right, but is instead an adverbial modification of something else. Both possibilities are explored elsewhere in his writing. The sections that follow consider them.

5. Dispositions

In taking certain questions about the measurement of durations to be metaphysically diagnostic, Wittgenstein does not only speak about the

awkwardness of making timings with a stopwatch. He also speaks about the awkwardness of checking on the occurrence of certain phenomenon with eine *Stichprobe*: a spotcheck or sample (or, more literally, a pricking test). Being inapt for such checking is taken to be diagnostic of the need for a dispositional analysis. It is said to mark a distinction between dispositional phenomena and 'all states of consciousness':

The general differentiation of all states of consciousness from dispositions seems to me to be that one cannot ascertain by spotcheck [*Stichproben*] whether they are still going on.

(§72)

The questions that Wittgenstein elsewhere raises about the timing of *assumptions* can be taken in the same spirit, as suggesting that our analysis of assuming should make reference to dispositions:

I assume that this house in which I am writing won't collapse during the next half hour. – When do I assume this? The whole time? And what sort of activity is this assuming?

Perhaps what is meant is a psychological disposition; or perhaps the thinking and expressing of particular thoughts.

(*Philosophical Grammar*, 110)

This again seems to be a point about the *measurement* of duration and not a point about whether durations can be assigned intelligibly. The duration of a disposition can indeed be hard to 'ascertain by spotcheck', especially in cases where the disposition remains untriggered, and especially in cases where the behaviour to which we are disposed is complex. It is nonetheless intelligible to assign timings to these dispositions (provided, as before, that we operate with a level of precision that is appropriate to the vagueness of their temporal boundaries). Again Wittgenstein may also have had something more in mind.

There is an additional source of awkwardness concerning the offset of dispositions, and there are some passages in which this is, perhaps, being indicated:

'So long as the temperature of the rod does not fall below ... it can be forged.' So it makes sense to say: 'I can forge it from five till six o'clock.' Or: 'I can play chess from five till six', i.e. I have time from five till six. – 'So long as my pulse does not fall below ... I can do the calculation.' This calculation takes one and a half minutes; but how long does *being able to do it* take? And if you *can* do it for an hour, do you keep on starting afresh?

(§672)

The problem raised by these last questions is, perhaps, a general problem about assigning a time to the offset of a disposition. In the last of the cases that Wittgenstein mentions, the problem arises in the following way: If some calculation takes one and a half minutes, and if my pulse falls below

the requisite level at noon, then, if I had started the calculation at two minutes to noon, I would have been calculating at one minute to noon. Thirty seconds later my calculation would have been completed. I could, therefore, have been calculating at one minute to noon. And so one minute to noon must be a time at which I had the ability to calculate. But if I had *started* the calculation at one minute to noon then the calculation would never have been completed, since my pulse would have dropped below the requisite level before the calculation was finished. If, at one minute to noon, I have not yet started, then it is already too late. When that time arrives, I no longer have the ability to complete the calculation. The result of this is that, if we ask at one minute to noon whether I have the ability to do the calculation (supposing that I am not actually doing it), we can find ourselves saying both that I have that ability, and that I no longer have it.

This forces us to be careful about the distinction between those things that one could now have been doing, and those things that one could now do. Attributions of disposition can easily fail to mark this distinction, and are therefore prone to ambiguity. When Wittgenstein asks whether an unrealized ability 'keeps on starting afresh', this may have been the point that he was raising.

This last point is one that can be raised about the malleability of a metal, as the passage in which Wittgenstein raises it suggests. It is a general point about dispositions and not a point about mental abilities in particular. In raising it, Wittgenstein seems to be indicating that there is a distinctive kind of awkward timing-question to which dispositions are susceptible. In asking such questions about the timing of assumptions, he may have been trying to establish that these should be analysed as dispositions, and not as active states of consciousness. In a related passage, he raises similar questions about the understanding of language:

In order to get clearer about the grammar of the word 'understand', let's ask: *when* do we understand a sentence? – When we've uttered the whole of it? Or while uttering it? [...]

How long does it take to understand a sentence?

And if we understand a sentence for a whole hour, are we always starting afresh?
(*Philosophical Grammar*, 50)

Again these last questions seem to be intended as awkward ones, and it may be that something like a dispositional analysis is supposed to be indicated by their awkwardness. For it to be true of you now that you understand German, you need only have a set of relevant dispositions. You do not now need to be doing anything. Wittgenstein's point in these last remarks may have been that the understanding of a single sentence can have a similarly latent dispositional basis, as indicated by the difficulty of ascertaining its moment of offset by the application of a spotcheck.

6. Adverbialism

As an illustration of his claim that ‘the process of thinking may be *very various*’ (§63), Wittgenstein draws our attention not only to cases of assuming and of linguistic understanding but also to cases of hope and expectation. Again questions of timing are raised:

Is ‘I hope ...’ a description of a state of mind? A state of mind has duration. So ‘I have been hoping for the whole day’ is such a description; but suppose I say to someone: ‘I hope you come’ – what if he asks me ‘For how long have you been hoping that?’ Is the answer ‘For as long as I’ve been saying so?’

(§78)

These last questions do not indicate that ‘hope’ and ‘expectation’ are vague nor that their instances depend on extrinsic factors. Nor does it seem that Wittgenstein takes hope to consist in a disposition. The possession of a disposition does not require that anything be done, only that something would have been done had the circumstances been right. Disposition-based analyses therefore contrast with adverbial ones: the adverbial analysis of an attitude entails that the instantiation of that attitude *does* require something to be done, in order for it to be done with the appropriate adverbial modification. Since Wittgenstein’s account of expectation is an account of things happening in the right way, and not of things that could have happened had the circumstances been right, it seems that his account is adverbialist, rather than dispositionalist:

When I expect someone, – what happens? I perhaps look at my calendar and see his name against today’s date and the note ‘5 p.m.’ I say to someone else ‘I can’t come to see you today, because I’m expecting N.’ I make preparations to receive a guest. I wonder ‘Does N smoke?’, I remember having seen him smoke and put out cigarettes. Towards 5 p.m. I say to myself ‘Now he’ll come soon’, and as I do so I imagine a man looking like N; then I imagine him coming into the room and my greeting him and calling him by his name. This and many other more or less *similar* trains of events are called ‘expecting N to come’.

(*Philosophical Grammar*, 141)

The processes mentioned in this passage are clearly (and perhaps deliberately) specific to the expectation of a mid-twentieth-century Cambridge don. None of them needs to be present in order for an instance of expectation to occur. None of them is identical to hope nor to expectation. But nor are these processes mere symptoms of those phenomena. The hope itself is not an additional process, hiding behind such manifestations:

One might observe a child and wait until one day he manifests hope; and then one could say ‘Today he hoped for the first time’. But surely that sounds queer! [...]

But now it is said: We can't be certain when a child really begins to hope, for hope is an inner process. What nonsense! For then how do we know what we are talking about at all?

(§469)

The nonsense that Wittgenstein is objecting to here cannot be the idea that inner processes are involved in hope. In his account of what went on when he expected that N would come, such inner processes as imagining N and saying to oneself 'Now he'll come soon' were included, together with processes of other more manifest sorts. The idea to be rejected as nonsense is not only that there is an inner process identifiable as hoping, but that any *particular* process is essential to hope's instantiation. Wittgenstein's view seems to be that hoping is constituted by various anticipatory processes – whatever internal and external processes those happen to be – provided that these occur in an appropriately cheery and future-oriented way. This view is an adverbialist one: a hope just is the anticipatory processes, conducted with the appropriate adverbial modification, and so it is not in competition with those processes.

I whistle and someone asks me why I am so cheerful. I reply 'I'm hoping N. will come today'. – But while I whistled I wasn't thinking of him. All the same, it would be wrong to say: I stopped hoping when I began to whistle.

(§64)

If this adverbial analysis of hoping is correct, then – although it might have seemed awkward – Wittgenstein's question about the timing of a hope can be answered affirmatively. That question arose in a particular context: some future occasion was mentioned and Wittgenstein said to his interlocutor 'I hope you'll come'. The question was then raised: 'For how long have you been hoping that?'. Wittgenstein's proposed answer – 'For as long as I have been saying so.' – can, on an adverbial theory, be correct. An advantage of this adverbial analysis is that the truth of such an answer does not require that any additional psychological entity pop into existence, concurrent with the utterance and just in time to save this expression of hope from insincerity.

Wittgenstein's utterance of 'I hope you'll come' may be the only thing that he does in anticipation of this person's coming. It alone may constitute the hope that it expresses. This points us towards an asymmetry between first and third person psychological attributions. Wittgenstein emphasises such asymmetries, but struggles to describe them to his own satisfaction:

Psychological verbs characterized by the fact that the third person of the present is to be verified by observation, the first person not.

Sentences in the third person of the present: information. In the first person present: expression.

(§472)

Unusually for the remarks that he collected in *Zettel*, this last remark is immediately followed by a parenthetical retraction: ‘Not quite right’. The remark would certainly not be right if it were taken to suggest that present tense psychological verbs in the first person express mental states in the same way that groans express pain. Wittgenstein may sometimes have been tempted by the analogy with groans of pain, but he was quite explicit in his eventual rejection of it:

‘I’m afraid’ can, for instance, be said just as an explanation of the way I’m behaving. In that case it’s far from being a groan; it can even be said with a smile. [...]

‘I wanted to describe my mental state to you’ – as opposed, perhaps, to ‘I merely wanted to vent my feelings’. I wanted him to know ‘how I am feeling’. (In this context one often speaks of the duration of the state.)

For surely it is one thing quietly to *confess* one’s fear – and quite another to *give expression* to it unabashedly.

(*Last Writings*, §§21, 32, 33)

In these remarks, Wittgenstein seems to have recognized that, whereas an unaffected groan of pain is a spontaneous manifestation of a prior feeling that is independent of that groan, the sincere expression of a fear can be an act of some quite different sort. This point would seem to apply equally well to the case of hope (although there may be other respects in which the two cases are significantly different, as noted in *Last Writings*, §24–5). One of the things indicated by Wittgenstein’s awkward question about the timing of hope is that the sincerity of an expression of hope does *not* require there to have been any prior independent feeling of hope. A different interpretation of his ‘Not quite right’ remark would, therefore, be preferable.

Rather than thinking of the first person present tense expression of hope as being analogous to an expression of pain, we can instead think of it as being analogous to the expressive act of promising. Done in the right way, it can be an act that constitutes the commitment to which it refers.

Our current understanding of such performative expressions is based on lectures that Austin first gave around the time of Wittgenstein’s death (Austin, *How to Do Things with Words*). It would be anachronistic to credit Wittgenstein with very much of Austin’s theory, but he does show an appreciation for the special way in which performative expressions behave:

‘If he comes I’ll tell him ...’ is a *resolution*, a *promise*. If it is not to be a false promise it must not rest on the certainty that he won’t come. It is neither a material nor a formal implication.

(*Last Writings*, §7)

On this understanding, the asymmetry between first and third person uses is not, in the case of hope, a result of the fact that you cannot groan with my pains. It is a result of the fact that I cannot be bound by your promises.

There is a problem to which adverbialist theories are prone, from which the view of hope that I am attributing to Wittgenstein would suffer. The problem is to explain how the manner of performance that is said to constitute an attitude gives this attitude the content that is essential to it. If Wittgenstein wants to say that his pacing up and down constitutes his expecting N to come because that pacing is done in an appropriately expectant fashion, then he is left without any account of why N, and not M, is the person expected. This problem is one that Wittgenstein notes: ‘how is the expectation of *one* signal distinguished from the expectation of a slightly different one’ (§53). Elsewhere he struggles to give a plausible solution to it:

I may indeed say: to walk restlessly up and down in my room, to look at the door, to listen for a noise is: to expect N. – That is simply a definition of the expression ‘to expect N’. Of course it isn’t a definition of the word ‘expect’, because it doesn’t explain what e.g. ‘to expect M’ means. Well, we can take care of that; we say something like: to expect X means to act as described and to utter the name ‘X’ while doing so. On this definition the person expected is the person whose name is uttered. [...]

And I may say: it is in language that expectation and its fulfilment make contact.
(*Philosophical Grammar*, 139–140)

The shortcomings of the idea that Wittgenstein assays here are easy to see. In order to see them, remember that the Revd. Spooner once concluded a sermon – in which he had several times used the name ‘Aristotle’ – by saying ‘Where I have been saying “Aristotle”, I have of course been meaning to say “Saint Paul”.’³ Since a person who is prone to Spooner-like slips of the tongue might utter the name of N when it is M that he is expecting, the solution that Wittgenstein is offering in this passage is not adequate to address the problem that his adverbial analysis of expectation creates. Nonetheless, the fact that he saw some such solution to be required supports the suggestion that, in the cases of hope and expectation, it was indeed an adverbial analysis that he was advocating.

7. Moves not permitted by the language game

Wittgenstein describes the recalcitrance to stopwatch-timing of knowledge, understanding and abilities as being a limitation in one particular language game. The preceding points have nonetheless been ones in which the concept of a language game played only a marginal role. But to see the last and most significant of the lessons from Wittgenstein’s questions about timing, we do need to recall the central role of that concept in his later philosophy.

³I owe this anecdote to a lecture by Jonathan Glover.

It is crucial to that philosophy that *Satzen* – (a word that is sometimes translated as ‘propositions’ and sometimes as ‘sentences’) – come to have their status as *thoughts* on account of being taken up in a language game, just as wooden counters come to have the status of being draughtsmen by being used in a game where their behaviour will be governed by the rules of draughts. Various insights follow from this idea, the most familiar of which have nothing especially to do with timing. We can arrive at an insight that *is* specific to matters of timing by first distinguishing between two ways in which some move might lie outside the set of those that are permitted in a game. As is often the case, the distinction can be introduced with reference to board games.

For a first example, consider a game of draughts in which you attempt to make a move in which no piece is taken, despite the fact that one could have been. The rules of draughts prohibit such a move. They dictate that, if any piece can be taken, then some piece must be.⁴ This gives us one clear sense in which the move that you are trying to make is not a move within the game: the rules of that game forbid it.

Moves in a language game can be forbidden in much the way that non-taking moves are forbidden in draughts. The rules governing language-use place immediate constraints on the things to which our words can refer:

‘Say “a b c d” and mean: the weather is fine.’ – [...] if I learnt the language in which ‘abcd’ meant that – should I come bit by bit to have the familiar experience when I pronounced the letters? Yes and no. – A major difference between the two cases is that in the first one I *can’t move*. [...]

(S6)

Other moves might be prohibited by the rules of the language game at the level of speech acts, rather than at the level of word-meanings. Third person promise-making and the assertion of Moore-paradoxical sentences might be examples of this sort. Again it follows from the rules of the game that these attempted speech acts are not permitted within it.

Wittgenstein is interested in several cases of this sort, but he does not raise questions about the timing or duration of the moves that are ruled out in this way. For our present purposes, a different way of being outside the rules is more important.

To see it, compare the example of your straightforwardly prohibited draughts move with an example in which we play a game of draughts where your counters are disks of ice, and mine are Alka Seltzer tablets. One of the icy counters melts during the game and one of the effervescent ones dissolves. This is not a move in the game of draughts. But the grounds on which it is ruled out are quite different from those in the previous case.

⁴In some versions the move that fails to take a takeable piece is a move in the game, but making it incurs the forfeit of a piece. Those are not the versions that we are considering here.

In the first case, your counter goes through a process of moving and, when we assess this as a move within the game of draughts, we find it to be prohibited. In the second case, there is again some process that the counters go through, but in going through this process it is not as pieces in the game of draughts that they act. The impermissibility of your first move can be deduced within the calculus of draughts moves, whereas the second move cannot even be described in the language of that calculus. We should, therefore, distinguish between those moves that do not occur in a game *because the rules prohibit them* and those that do not occur *because the language in which those rules are formulated does not enable such moves to be represented*.

With this distinction in mind, a Wittgensteinian insight about the timing of mental phenomena comes into view. We see it in Wittgenstein's *Last Writings*, when an awkward question is asked about the duration of a particular move in chess:

'I'm moving my bishop.' – 'How long are you moving it?'

(2e)

I take this last question to be offered in the same spirit of awkwardness that characterizes all of Wittgenstein's questions about timing, but the source of that awkwardness can seem elusive: there is a perfectly clear sense in which durations *can* be assigned to chess moves and can be measured with a stopwatch. (Indeed, stopwatches are sold in pairs for this express purpose.) There is nonetheless an equally clear sense in which Wittgenstein's question has no good answer. The language of chess cannot register whether a piece was moved slowly or quickly, with the right hand or the left, above the table or below it. All that matters *in the game* is that the bishop is now here and now there. The language of the calculus of chess does not describe the *process* of moving. The process to which a duration can be assigned is not itself a part of the game. This is not because the rules of the game prohibit such a process, as they do prohibit non-taking moves in draughts. Instead, it is because the language of those rules is a language in which such a process is not representable. The sense in which the process of moving pieces is not among the moves in the game is, therefore, the second of the two senses that we have distinguished: this process is no more a part of the game of chess than is the dissolving of my counters a part of the game of draughts. It is because the process of moving pieces is not itself part of the game of chess that a question about the duration of that moving can be awkward.

One indication that the process of moving lies outside of the game (in the second of the two senses that we have distinguished) is that the very same game can be played without any process of moving being involved:

Let us imagine that chess had been invented not as a board game, but as a game to be played with numbers and letters on paper, so that no one had ever imagined a board with 64 squares in connection with it. And now suppose someone made the discovery that the game corresponded exactly to a game which could be played on a board in such and such a way. This discovery would have been a great simplification of the game (people who would earlier have found it too difficult could now play it). But it is clear that this new illustration of the rules of the game would be nothing more than a new, more easily surveyable symbolism, which in other respects would be on the same level as the written game.

(Philosophical Grammar, 223)

If we are going to think about chess in the way that this passage indicates, then we must distinguish between the rules of the game itself, and the stipulations that are made about the way in which that game will be played. In order for the game of chess to be played with some pieces on a board, we introduce stipulations telling us how the movements of those pieces are to be interpreted as moves in the game. To this end, we specify that, for example, pieces will count as having been moved when one's hand is lifted from them. If we are to follow Wittgenstein in saying that the same game could be played with or without a board then these stipulations should not themselves be understood as being among the game's rules. Instead of telling us what is legal within the game, these stipulations must be understood as telling us what is going to be counted as a move. Once this stipulation is in place, the rules of the game can then be applied.

This distinction between stipulations and rules is one of which Wittgenstein seems to have been vividly aware. The stipulations for interpreting piece-manipulations as game-moves can be understood as being like the syntactic conventions telling us which strings of symbols are to be counted as well-formed formulae. The rules determining which game-moves can be made can then be understood as being like the rules telling us which sequences of those strings are valid. To say that a move in chess requires one's hand to be lifted from the piece is, in this sense, to make a *grammatical* remark, whereas to say that a move in chess requires that one not move into check is to make a remark of a different sort. Wittgenstein took this distinction to be of the first importance, not only for understanding games but also for understanding the function of philosophy.

Although we have identified a sense in which the process of moving pieces is not itself part of the game of chess, there is – of course – an equally good sense in which playing chess involves nothing other than repeated instances of this very process. Chess comprises nothing other than the making of moves.

We might express this last point by saying that the language of the calculus of chess does not require the *verbs* 'to move', 'to capture', 'to checkmate', but that it does need to describe the phenomena of moves, captures and

checkmates. That way of putting things shares the structure of the gnomic remark with which we began:

The psychological verbs to see, to believe, to think, to wish, do not signify phenomena. But psychology observes the phenomena *of* seeing, believing, thinking, wishing.

(§471)

In light of this, I suggest that Wittgenstein's point in making this remark may have been that, in the second of the two senses that we have distinguished, the processes of seeing, believing, thinking and wishing are not themselves a part of that language game in which *Satzen* come to have the status of being contentful thoughts, although these *are* the processes by which that language game is played. The appraisal of these processes plays no role in determining the state of that game, just as the rules of chess give no verdict on the process by which the bishop gets from one square to another. These are processes by which the game is played, but that cannot be described with the language of the calculus of the game in which they figure.

Just as the process by which the bishop is moved can be described only if we start speaking in a language other than the language of the calculus of chess, so the process by which understanding is accomplished can be described only if we employ terms that are not themselves framed in the language of the calculus of the *Sprachspiel*. One symptom of this is that:

It is very noteworthy that *what goes on* in thinking practically never interests us. It is noteworthy, but not queer.

(§88)

The point here is not that the process through which thinking is accomplished needs to be described in some language other than English or German: the language that cannot be used is not the language in which the game itself is played; it is the language in which the rules of the game are formulated, and in which moves can be appraised. We can, of course, describe and assess a person's thoughts and understanding. What we cannot do, relative to the rules of the game within which thoughts acquire their status as meaningful, is to assess the process by which that understanding was achieved.

To clarify the significance of this last point, more needs to be said about 'the rules of the game within which thoughts acquire their status as meaningful'. According to readings of Wittgenstein that owe something to the influence of Wilfrid Sellars – (readings such as that offered by Brandom, *Making It Explicit*) – the game within which thoughts acquire their status as meaningful is 'the game of giving and asking for reasons'. The rules of this game are the rules of rationality, broadly construed. To say that we cannot assess the

processes of understanding relative to the rules of the game within which thoughts acquire their status as meaningful is, therefore, to say that we cannot assess the *rationality* of those processes.

If these readings of Wittgenstein are correct then the point that we have just made relates immediately to one of the central lessons from Wittgenstein's rule-following considerations. In giving our account of the processes that take place when someone follows a rule for the correct use of some term, we will eventually come to a process in which this person is just going on in accordance with the rule, without this rule acting as a guide.

How can he *know* how he is to continue a pattern by himself – whatever instruction you give him? – Well, how do I know? – If that means 'Have I reasons?' the answer is: my reasons will soon give out. And then I shall act, without reasons.

(*Philosophical Investigations*, §211)

At the point where reasons give out, the rule-follower is not going on *irrationally*. That is because the process executed by the rule-follower at this point is not one that can be appraised as irrational: the game governed by the rules of rationality is not a game of which this process is a part. This process is, nonetheless, one of the processes by which that game is played, just as the process of manipulating pieces is one of the processes by which the game of chess is played.

Taking this line of thinking to be central to Wittgenstein's rule-following considerations gives us an interpretation of some of the more elusive passages that occur in the midst of those considerations:

Try not to think of understanding as a 'mental process' at all. – For *that* is the expression which confuses you. [...]

In the sense in which there are processes (including mental processes) which are characteristic of understanding, understanding is not a mental process.

(A pain's growing more and less; the hearing of a tune or a sentence: these are mental processes.)

(*Philosophical Investigations* §154)

Understanding is an essentially mind-involving phenomenon, in the sense that it is only creatures with minds that understand things. This makes it tempting to suppose that, when Wittgenstein denies that understanding is a mental process, he cannot be denying that it is *mental*. Two misreadings result from this. The first misreading supposes that, since understanding must be mind-involving, Wittgenstein can here be denying only that understanding is a *conscious* process. On this reading, the passage above is part of an attack on the idea of the mind as being most fundamentally an inner, private phenomenon. The second misreading supposes that, since understanding's mental credentials are impeccable, the significance of denying that understanding is a mental process must be to deny that it is a *process*.

The above passage is then read as part of an effort to identify mental phenomena with entities belonging to other metaphysical categories, such as dispositions and adverbial modifications.

The reading that I am suggesting differs from both of these. Understanding *is* a process – it is, in some instances, the process through which one comes to know what acting in accordance with a rule requires. Consciousness may be essentially involved in it. Wittgenstein is not denying either of these things. His point is that understanding is not a *mental* process, for the same reason that the process of advancing one's bishop is not a process *in the game of chess*. This is compatible with the idea that understanding is a process that requires one to have a mind. It would also be consistent with the fact that a duration *can* be assigned to the processes in which thinking and understanding take place. Such durations would be analogous to the durations recorded on a chess tournament's stopwatches: a calculation can, as Wittgenstein says, take one and a half minutes.

The processes having these durations are not themselves representable in the language of the calculus of the game. If we attempt to use that language in talking about them, we find ourselves talking about something else:

Really one hardly ever says that one has believed, understood or intended something 'uninterruptedly' since yesterday. An interruption of belief would be a period of unbelief, not e.g. the withdrawal of attention from what one believes – e.g. sleep. (Difference between 'knowing' and 'being aware of'.)

(§ 85)⁵

8. Conclusion

We have said that durations can intelligibly be assigned to knowledge, to understanding, to the possession of an ability and to the experience of an emotion or a sensation. We have seen that the awkwardness of Wittgenstein's questions about the timing of these phenomena can nonetheless be taken to indicate something about their nature. It can be taken as indicative of their vagueness, their dependence on extrinsic factors, their adverbial or dispositional character, and the perdurant or endurant profile of their persistence. Wittgenstein rightly took all of these points to be philosophically important.

We have also seen that there are at least some cases in which Wittgenstein's worries about duration have a different source. Questions about timing are sometimes awkward in a way that is symptomatic of the phenomenon in question being a part of the process by which the language game is played, without being a part of the game itself. Since it is participation in the game itself that endows mental phenomena with their normative statuses,

⁵The words 'knowing' and 'being aware of' are given in English in Wittgenstein's notes: 'Unterschied zwischen "knowing" und "being aware of".'

those phenomena that are not themselves a part of the game cannot be appraised relative to the norms that this game introduces. This enables them to play a foundational role in the explanation of how those particular normative phenomena can be grounded. In some cases, it is these matters of normative grounding that Wittgenstein's questions about timing illuminate.

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