Wittgenstein's Times (And Ours)

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Wittgenstein's ideas about time are interesting in the context of his philosophy, but they can also serve as an object of a case study in discussing some of the most important conceptual issues concerning time, time-reference and memory.

What was Wittgenstein's conception of time in the *Tractatus*? He says very little about it directly, but his other expressed views imply several definite conclusions concerning the role of time in his thinking. According to his view of propositions as pictures, a proposition is verified or falsified by a comparison between such a picture and a fact. It is an important feature of Wittgenstein's ideas that such a comparison must in the last analysis be direct. A proposition must be capable of being "put on the top of a fact", as he once expressed himself.

You cannot compare a picture with reality, unless you can set it against it as a yardstick.

You must be able to fit the proposition on to reality. (*Philosophical Remarks* IV, sec. 43)

Such comparisons are the link between language and reality. The notion of time enters into the picture (pardon the pun) because according to Wittgenstein such a direct comparison can only take place in the present. Later, Wittgenstein expressed the *Tractatus* view on time as follows:

If the world of data [i.e. phenomenological world] is timeless, how can we speak of it at all?

The stream of life, or the stream of the world, flows on, and our propositions are so to speak verified only at instants.

Our propositions are verified only by the present. (*Philosophical Remarks* V, sec. 48)

Thus in the *Tractatus* the interface between language and reality lies entirely in the present. This is virtually a corollary to Wittgenstein's general idea that the simple objects out of which all facts ultimately consist are objects of *my* experience. This interpretation of the simple objects of the *Tractatus* was argued for in Hintikka and Hintikka (1986). This position of Wittgenstein's might seem to resemble solipsism. Wittgenstein acknowledges the similarity in *Tractatus* 5.62–5.64 but also points out the differences. Wittgenstein does not maintain that only my experiences are real or even that only the objects of my experiences are real. Rather, what he is getting at is that my experiences are the only interface between my language and reality.

In the same sense, and with similar qualifications, we might call Wittgenstein's position in the *Tractatus* "temporal solipsism".

But in both cases the term "solipsism" has to be taken with more than a grain of salt. As in Russell, objects outside my circle of direct acquaintance are not any less real for being logical constructions from the immediately given. Likewise, Wittgenstein is not maintaining that only the present moment of time is truly real, but only that all comparisons between language and reality are transacted in the present. Other times are not any less real because they can logically speaking be construed as constructions out of my present experiences. Wittgenstein might have said of temporal solipsism the same as he says (from the vantage point of his other ideas) that it ultimately coincides with pure realism.

What kind of logical construction of time out of my experiences did Wittgenstein envisage? In *Our Knowledge of the External World* (1914) Russell sketches a construction of space starting from the perspectival experiences of different observers. Then he simply says (121) that a similar construction is possible for time. Is this the kind of construction that Wittgenstein had in mind? Or did he think that a much more elaborate constitution of time is needed, perhaps along the lines of Edmund Husserl's examination of the phenomenology of our external time consciousness. (See Husserl 1966)

Whatever Wittgenstein had in mind, in one respect it must have resembled Husserl and undoubtedly also Russell's unrealized project. A main burden would have fallen on my present-moment memories. In Wittgenstein's later terminology, his conception in the *Tractatus* would have to be called memory-time. The role of memory in the world-construction is in fact later referred to by Wittgenstein by speaking of "memory as a source of time". Such a conception of time is contrasted by him to another one according to which memory is "a preserved image of a past event." It nevertheless seems that Wittgenstein had something easier in mind than Husserl's elaborate construction. In *Tractatus* 2.0251 he writes: "Space, *time* and color (being colored) are forms of objects." (Emphasis added.) What Wittgenstein means is not difficult to grasp and is also shown by his later remarks of what he calls the memory time and which is a later version of the notion of time he presupposed in the *Tractatus*. An especially clear source is section 105 of *The Big Typescript*. Equally intrinsically, one memory datum may precede another one. "The data of our memory are ordered" as Wittgenstein puts it. At one point, he even assimilates memory time and this intrinsic ordering of memory experiences. In contrast, there is no future in memory time, for no experience comes to me with its object earmarked as belonging to the future.

By being so built into logical forms of the objects of experience, the relations of earlier and later determined for Wittgenstein the logic of time. This makes the time construction easier because for Wittgenstein those objects of experience are the simple objects out of which everything else ultimately consists in. Their logical forms govern the ways in which simple objects can be combined with each other into facts. They are hence the basis of all logic. Instead of "phenomenology is grammar" Wittgenstein could as well have said, "phenomenology is logic." Hence the logical construction of other times from present memory-experiences is facilitated by the fact that certain temporal relations are built into the objects of these experiences and thereby into the logic of the rightly analyzed languages. These relations are primarily those of earlier and later, perhaps even exclusively so. According to Wittgenstein, in memory-time "there is only earlier and later, not past and future". The latter obviously could only be logical constructions from the data of memory-time.

The idea of time as a determinant of a logical form was later given up in so many words by Wittgenstein. As in so many other occasions in Wittgenstein, his going out of his way to refute a position is here strong evidence that he had espoused that position himself. His rejection is based on a distinction between what he calls "the logic of the content" and "the logic of the propositional forms in general". In this distinction, the logic of time belongs to the former.

By comparison with the way in which the truth-functions are applicable to all propositions, it seems to us accidental that all propositions contain time in some way or other. (*Philosophical Grammar*, 217)

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Indirectly this helps to understand what the conception of time was that Wittgenstein held in the *Tractatus* but later gave up.

Wittgenstein's concept of time in the *Tractatus* is apparently subject to important criticism. What I have called Wittgenstein's phenomenology does not mean that for him simple objects are phenomenalistic, existing only in our consciousness. The crucial idea is that they exist *both* in our consciousness *and* in reality, in other words, that there is a genuinely direct awareness of them. Wittgenstein is as far from an idealist as G.E. Moore.

However, this position seems hard to maintain in the case of objects of memory. At the moment of remembering, they are not any longer immediately present in reality. We do not seem to have direct experiences of what is past or future. (This is likely to be what Wittgenstein means by saying that there is no past and future in memory time.) Hence what Wittgenstein seems to be proposing is that we should think of the past and future as unreal. Then we can consider ourselves as "living in the present" and whoever does so "lives without fear and hope". (*Notebooks 1914–1916*, 76) This makes sense. What we regret belongs to the past, and what we fear and hope belongs to the future. Thus there is a nontrivial connection between Wittgenstein's conception of time in the *Tractatus* and the ethical views he espouses there.

Wittgenstein was aware of the problems involved in his position on time in the *Tractatus*. He was aware that he is there in a sense assuming that memory is a kind of seeing into the past. He explains this idea from the vantage point of his later thought by evoking the contrast between phenomenological and physical time.

[I]t contradicts every concept of physical time that I should have perception into the past, and that again seems to mean nothing else than that no concept of time in the first [phenomenological] system is different from that of analysis. (*Philosophical Remarks* V, sec. 50)

But since Wittgenstein's position in the *Tractatus* is what he later came to refer to as phenomenological, this statement suggests that in his early thinking memory indeed amounted to a direct awareness of the past. This would have reconciled his Moorean realism with the reality of the past.

However, it is not hard to understand what in Wittgenstein's early views might have given rise to the impression that he is presupposing "a perception of the past". It is this same idea that he expressed by saying that time is a form of objects, of objects of memory experience. It is a feature (a part of their logical form) of memory experiences that their objects belong to the past. Whether or not this idea commits Wittgenstein to maintaining that there is "seeing into the past", it is what is involved in his problem.

Did Wittgenstein succeed in reconciling acquaintance with the past and the immediacy of such acquaintance? It seems that he became aware of the full difficulty of the problem only later. They were made pressing by Wittgenstein's switch from phenomenological languages to physicalistic ones in October 1929, which necessitated separating physical time from phenomenological time. It is not so outrageous to maintain that we can have direct experiences of phenomenological objects that belong to the phenomenological past. But, as the quote above shows, it is the idea of physical time that cannot accommodate "seeing into the past". Wittgenstein's solution at the time of *Philosophical Remarks* was to keep the two ideas of time separate. But that left their relation unexplained. Later still, at the time of the *Blue Book*, Wittgenstein came to think of phenomenological language as a kind of notational variant of the ordinary physicalistic language. If he were consistent, he must have extended this view to phenomenological time. Later in this essay, it will be investigated what was involved in this development.

The problem of direct awareness of the past was not peculiar to Wittgenstein, either, but occurs also in Russell, among others. In his case, the interpretational problem was debated between James Urmson (1956) and David Pears (1967, 71).

The notion of time is thus intimately related to the main tenets of the *Tractatus*. It plays an even more important, albeit equally tacit, role in Wittgenstein's transition to his later philosophy. In the *Tractatus*, the exclusiveness of memory-time was made possible by Wittgenstein's idea that the pictorial character of propositions exhausts their semantics. It was only because of this exhaustiveness that Wittgenstein could think that all comparisons between language and reality reduce to direct confrontations of a picture and a fact, confrontations that can only happen in the present.

When this exhaustiveness claim was given up by Wittgenstein sometime around 1928, he had to rethink also his ideas about time. (See here Hintikka, forthcoming, and the references given there.) If the meaning-giving comparisons between language and reality could not be instantaneous, they had to be mediated by certain human activities. In the beginning, they involved primarily arithmetical calculations, but later they came to involve what he called language-games. (They also involved activities of seeking and finding, although Wittgenstein unfortunately never came to think of them as distinct language games.) In any case, the comparison (verification) activities could only take place in physical time, and they inevitably required a lapse of physical time. Hence the objects which our language refers to and which the expressions of our language are compared with cannot be momentary but had to persist at the very least for the duration of the comparison processes. In October 1929, Wittgenstein concluded that only physical objects could fill this bill, and came to consider the objects referred to in our language physicalistic.

It might therefore seem that as a consequence Wittgenstein ought to have given up memory-time altogether and replaced it by the physicalistc conception of time that he later called information-time. Yet he continued to recognize also memory-time. Why? Part of the explanation lies in the facts of our actual conceptual system, where both concepts of time are in a sense present, as will be discussed later in this paper. But another part of the explanation lies in the fact that even though Wittgenstein's semantical priorities changed in October 1929, his ontological ones did not. "The world we live in is the world of sense data [i.e. phenomenological objects] but the world we speak of in language is the world of physical objects, " he said of his lectures in 1930. He might as well have said, "The time we live in is memory-time, but the time we speak of in our language is information time." But if so, how can we speak of memory time in our physicalistic language?

Memory-time did in any case lose its pride of semantical place. When it comes to our normal talk of everyday physicalistic objects, the ultimate criteria of truth and meaning for past-tense statements do not any longer lie in the testimony of memory. This shows the true meaning of what might look like Wittgenstein's frequent criticisms of the reliability of memory in his later philosophy. They are not epistemological arguments concerning the credibility of different kinds of testimony. Rather, they are reminders of the semantical priorities holding in our physicalistic language.

This logical primacy of physical time might seem to be belied by Wittgenstein's remarks of time in *Philosophical Investigations* I, secs. 607–608. It might seem that Wittgenstein is there describing how we judge time, not by physical criteria, but by complex mental operations. However, this impression is totally wrong. It does not shed any direct light on his concept of time. Anscombe's translation is badly misleading. She has Wittgenstein speak of *judging* what time it is. This word connotes finality, a definite conclusion. However, Wittgenstein's word is *schätzen* which means something quite different, namely *estimating*. (One dictionary adds: estimating "roughly".) Now estimating is what we do when we do not know what the estimated object really is like. Hence Wittgenstein's discussion there is not calculated to tell us anything about what it means for the time to be so-andso now and even less about what time is, only about what happens when we are venturing our best guess of what the time is now. The thesis of his discussion is that by estimating time we do not mean having any particular experiences, in contrast for instance to the words referring to internal sensations.

In discussing the role of time in Wittgenstein's later thought, we are facing a complex of issues that pertain partly to the understanding of Wittgenstein's thought, partly to the conceptual problems themselves which he was facing and which still are not adequately understood. An initial problem was already registered. If our language is intrinsically physicalistic, how can the apparently phenomenological memory-time be expressible in it? Or are the two distinctions, the one between memory-time and information-time and the other between phenomenological time and physical time, not parallel after all?

This problem complex is made even more complicated by the seemingly related distinctions that can be made and have been made between different kinds of memory. Perhaps the best known is cognitive psychologists' distinction between episodic and semantic memory. (See here e.g. Tulving 1983) Roughly speaking, episodic memory deals with remembered episodes of my past life while semantic memory pertains to remembering impersonal information. The father of the distinction among psychologists, Endel Tulving, sees an analogy between his distinction and Russell's contrast between knowledge by acquaintance and knowledge by description.

But what is the relation of this distinction to the others? And is the episodic-semantical contrast itself viable? In recent research it has been largely supplanted by a different distinction that is referred to as a distinction between procedural and declarative memory. Sometimes semantical memory and episodic memory are considered as kinds of declarative memory. (See e.g. Cohen and Eichenbaum 1993.) This new distinction is more complicated than the old one. It seems in any case clear that procedural memory deals with operations in perspectival space.

In order to analyze (and synthesize) these questions, it is necessary to bring in an absolutely crucial conceptual distinction which nevertheless has been almost completely neglected by contemporary philosophers. It is a distinction, not between two concepts of time or two kinds of memory, but between the kinds of identification. (I have explained this distinction in Hintikka 1970 and later in numerous publications.) What is the distinction? What does it mean to identify a person or an object, anyway? This is an extremely complex conceptual problem. However, for my purposes here a simple answer is enough. To identify x is to locate x in an appropriate framework or "map". (Peirce speaks of a "chart".) This framework is common to all the possible scenarios or other *possibilia* that we are considering, be they model, epistemic, doxastic or whatnot. Such a "map" may be literally geographic, but it may also be the social structure of a community or even more abstract frame of reference such as the Social Security numbering system. (Without a Social Security number, I am afraid you do not really exist in contemporary American society.) This point is connected with some historical linguists' claim that the primary sense of verbs of being is the locative one.

Consider as an example visual cognition. (Cf. here Hintikka and Symons 2003.) One of the "maps" relevant here is of course the one which we rely on in our ordinary dealings with each other and the world exemplified by identification by social security numbers. It may be said to yield the public mode of identification. It is clear how we express such identification linguistically. If I can visually identify a person in a public framework, I can say that I *see who* she is. In general, public identification is expressed by means of the *wh*-construction. But at each moment I can also use my visual space as the relevant framework. I can place some persons and objects in it but not others. When I can knowingly place a person in my visual space, I can say that I *see her*. In general, this kind of, as it were, local identification is expressed by means of using the direct grammatical construction. This mode of identification is called perspectival. It was just seen that the distinction between the two kinds of identification is reflected even in our ordinary language.

If your first name is Van (or maybe Bertrand) and if you believe that there is no entity without id-entity, you might be tempted to speak of two different kinds of objects, for instance visual objects as distinguished from physical ones. Often, it is in fact helpful to talk in this way. To borrow a locution from Quine, when I match a face with a name, I locate a visual object on the map of physical (public) objects. When I match a name with a face, I locate a public object among my visual objects. However, these are merely convenient but misleading locutions. *Sub specie ontologiae*, what is involved is of course merely two different ways of identifying the same entities.

In contexts of memory, my personally remembered past similarly constitutes a framework in which I can place some persons, objects, places and times but not others. My first-hand memories can be thought of as a play (or perhaps a long-running soap opera) in which some people appear in different roles whereas others (most others, undoubtedly) do not. Moreover, in the context of a play I can identify a person in two different ways, either as the character he or she played or also as the person an actor was in his or her everyday life outside the theater. In analogy with the visual cognition case, sometimes I can speak of remembering who it was that appeared in my personal drama and sometimes I can speak of remembering someone who played a memorable role in that drama even when I do not remember who he or she was.

Let me take a small actual personal experience as an example. For years I used to say, truly, employing the direct-object construction, that I remembered a ten-year old (or thereabouts) kid I played tennis against at a racket club near Rotterdam some twenty years ago, even though I was unaware of his name, present whereabouts or even of his present looks. I could truly say that I remembered him, his forehand and his intensity. I could have gone on saying so truly even if I had not much later suddenly realized who he was. (Wh-construction!) He was Richard Krajcek, the 1996 Wimbledon champion.

Identification in the sense of locating items in one's remembered past is thus another instance of perspectival identification in contrast to the identification in the everyday sense which I have called public. Examples of the kind that have been presented show that the former kind of identification is expressed by the direct object construction while the latter is expressed by "remembers who (or what)" construction.

Expressed in such informal language terms, my words are unlikely to raise hackles or even eyebrows among my readers. However, the precise logical implications of the points I have raised have escaped almost all logicians, philosophers, psychologists and cognitive scientists. Yet it is important not only to acknowledge the distinction but to recognize its precise nature. For one thing, the distinction between two modes of identification is not and does not entail a distinction between different kinds of memory. Rather, it is quantification that is affected, the obvious reason being that the values of quantifiers (i.e. values of quantified variables) must be identified individuals (or identified entities of some other logical type). Since we have here two modes of identification, we must have two different pairs of quantifiers, public and descriptive. Let them be $(\exists x)$, $(\forall y)$ and (Ex), (Ay), respectively. Then a singular term b can be substituted for a publicly quantified variable if and only if there is a public individual which is remembered to be b, in symbols

(1)
$$(\exists x)R_a(b = x)$$
 where R_a expresses "a remembers that".

Actually, a small correction to what was just said is in order. As you can see by contemplating the meaning of (1) with the help of possible worlds (or, rather, possible scenarios) framework, it expresses that a remembers d as d. The fact of a's remembering someone who as a matter of fact (possibly unremembered and unknown fact) as d is obviously expressed by

(2)
$$(E_x)(d = x \& (E_y)R_a(x = y))$$

My remembering the kid who turned out to be Richard Krajcek is a case (a memory) in point.

This qualification shows how we can spell out in our logical notation the distinction between remembering d as d and remembering an individual who in fact was d. This possibility is a telling testimony to the expressive power of the logical notation used here.

One thing that has made it unnecessarily hard for philosophers to appreciate the logic of this kind of two-kinds-of-quantifiers system is a wrong (i.e. oversimplified) picture of the semantics of quantifiers. Their semantics is thought of as being exhausted by their ranging over a class of values. Here it must be recognized that quantifiers unavoidably also involve a particular mode of identification. Misunderstandings on that score are epitomized by the label that was put on my earlier way of spelling out formally the dependence of quantification in intensional context as the mode of identification: "restricted range interpretation". What range—may I ask?

This analysis of identification in memory contexts is a straightforward one. Yet it has remarkable consequences. One of them stares you in the face when you look at expressions like (1)-(2). *There is only one memory-operator in them.* There is no distinction to be made between two kinds of memory in the strict sense of the word. What we find in (1)-(2) is a distinction between two modes of identification, not between two kinds of memory.

In the analogous case of visual cognition the same observation can be made. I have examined, together with John Symons, its consequences (Hintikka and Symons 2003). They reach into the actual theories in neuroscience. The two systems of identification are in the central nervous system implemented by two different centers in the brain, each implementing a different cognitive system. The one is known as the where-system and the other as the what-system. Their behavioral manifestations show that the former implements perspective identification and the latter the public identification. They have different neural pathways leading to them from the retina. At one point the most widely held view about the operation of these two centers was what is known as the two pathways theory. This theory sought to explain the difference between the two systems as being due to the fact that the two pathways convey different kinds of information to the two centers. In the analogical light of what has been found here, this cannot be right. For in the two systems of identification, manifesting themselves as they do in the two cognitive systems, we are dealing with the same kind of knowledge or information. It was therefore to be expected that the two pathways theory has been subject to severe criticism by leading neuroscientists like Zeki (1993).

What has not been pointed out before is that analogous remarks apply to memory. For one thing, the distinction between episodic and semantic memory is clearly intended to capture the difference between two memory systems that implement the two different kinds of identification described above. But if so, we are not dealing with a difference between two kinds of memory, by the same token as applied to visual perception. Hence it is not surprising that the episodic vs. semantic distinction has largely been rejected by cutting-edge neuroscientists like Eichenbaum and supplanted by a more sophisticated distinction. (Cf. here e.g. Cohen and Eichenbaum 1993.)

Again, the anatomical localization of the two systems is an interesting scientific task. The centers in the brain that implement the two memory systems are in any case not the same as the centers that implement the analogous systems in visual perception. The anatomical facts are less clearcut here than in visual cognition. It is known that the hippocampal system plays a crucial role. It is to be expected that the current intensive research into this system will provide further insights into the distinction between the two modes of identification in memory.

Thus a logical analysis of identification in memory contexts leads to highly interesting questions and sometimes even answers. There are further conclusions to be drawn from the analysis outlined here. The analogy between the two kinds of identification in visual cognition and in memory prompts the question: How do these parallel distinctions depend on vision and on memory, respectively? Consider the two kinds of identification systems in memory. They are not on a par. The frameworks ("map") relied on in the two cases are different, and different in scale. My remembered past mediates perspectival identification. But what I so remember is only a miniscule subplot in the grand drama of total world history which is the framework of public identification. Hence one task that our conceptual system must help us to perform is to combine the innumerable small memory-perspectives into a single system of public, as it were global, reference. How can this be done? Or, even more fundamentally, what is the structure of this task?

Before trying to answer this question, let me ask another one. What precisely is the role of memory in perspectival identification? An exhaustive answer is: it provides the perspectival framework for identification. But this does not mean that all the information about this framework must come from direct unaided memory episodes. Surely the information needed to direct a rerun of the drama (or comedy) of my past life may come partly from such external sources as diaries, photographs, other people's reminiscences. The true logical role of myself is not primarily to provide memories of what happened, but to provide the fixed Archimedean point from which the entire framework is viewed. This does not seem to impose much by way of limitations to the memory framework. Yet there is one absolutely crucial limitation. The framework cannot transcend a single world line in Einstein's sense. Even if I observe everything and remember everything and live forever, what I can be said to remember for the purposes of perspectival identification is restricted to one world line.

Hence the problem of merging perspectival frames of identification by memory into one unified global framework is at bottom identical with the problem of defining absolute time in the special theory of relativity. And, as Einstein showed, the problem does not have a unique solution. Perspectival times cannot be merged into an absolute public time.

This result has all sorts of repercussions. For one thing, it shows that *sub specie aeternitatis* there cannot be a unique physical time at the bottom of our concept of time. When Wittgenstein continued to postulate two different notions of time one of which is memory-time, he was on the right track —or was he just lucky? We can speak of time in two different ways because

we have the corresponding two modes of identification in our own conceptual system and even in our ordinary discourse.

Furthermore, the same insight has other consequences. It was pointed out that memory as a source of information thus has only the task to promise the right framework (including its origin) of perspectival identification. From this it follows that another person who does not have the same memories as I do can nevertheless use a perspectival mode of identification, provided that person knows enough about my framework of such perspectival identification. In the simplest cases, this requires knowing only when (and in principle where) I make a statement. The rest of the framework may be provided by the commonly known and commonly remembered chronology. This explains how we can have in our conceptual system, expressed in our ordinary language, a subject-centered mode of time reference. This is what is sometimes called indexical time reference. It involves such expressions as "now", "yesterday", "last week", "three months ago" etc. What I am suggesting is that it should be viewed as a rudimentary case of perspectival identification by memory. Thus ultimately Wittgenstein's contrast between memory-time and information-time seems to reduce to a distinction between two modes of time reference, indexical and chronological.

This seems to separate completely the distinction between memory-time and information-time from the contrast between phenomenological and physicalistic languages, more generally between the phenomenological and physicalistic attitudes. But how are we to understand the latter contrast, anyway? The interpretation of phenomenology is a tricky matter systematically in the best of circumstances. Perhaps phenomenology can be best understood in historical terms as an attempt to revive the old Aristotelian idea of form. But in a topical perspective it lies close to hand to suggest that at bottom the famous step from the natural attitude to the phenomenological one is nothing but experimentally giving up the physicalistic frame of identification in favor of the perspectival one. The famous constitution will then be precisely the problem mentioned above of integrating the multitude of perspectival frameworks. It would be highly interesting, not to say fun, to view the entire phenomenological enterprise in this light.

However, Wittgenstein for one could not for some reason or other do so. His main reason is, as we have seen, that for him the contrast between the world of phenomenology and the world of every-day physical objects was an ontological one. It was a distinction between two different kinds of objects. In the terms discussed earlier in this paper, Wittgenstein initially took

the perspectival vs. public contrast to be a distinction between two kinds of objects. According to his sometime view, there are phenomenological objects, for instance sense data, and there are everyday physical objects, even though we can speak of the former only indirectly, by referring first to physical objects. But in one sense (perhaps the most natural sense) the distinction between two kinds of identification does not imply the existence of two kinds of entities. It is tempting to speak of perceptual objects and physical objects, but the term "object" will then be a mere façon de parler. I do not at the moment of writing this have two cats lying on my desk, a perceptual cat and a physical, even though I can be said to wonder which of my two cats my visual object is identical with. What generates the false impression that perspectival vs. public contrast amounts to (or entails) an ontological distinction is the need of two different pairs of quantifiers needed to implement the contrast. But what this feature of the logic of perception necessitates is merely a more nuanced conception of the relationships between the concept of identification, the semantics of quantifiers and their values, and the ontological notion of an object.

This explains a main feature of Wittgenstein's later philosophy which for me has been intensely puzzling. This feature is the disappearance of the contrast between the phenomenological and the physicalistic from his later thought. Just because Wittgenstein conceived of this contrast as ontological, the realization that no separation of two kinds of objects was involved, the phenomenological vs. physicalistic contrast became irrelevant for him.

This explanation presupposes something that is not at all obvious at first sight. It presupposes that Wittgenstein was aware of the fact that in distinctions between what looks like different kinds of seeing or remembering the real distinction is between two kinds of identification. After all, this distinction was only diagnosed much later and still is not common knowledge.

The remarkable thing is that Wittgenstein was aware of this crucial insight. This is shown by his remarkable analysis in the *Blue Book*, 61–71. It would take me too far afield here to present a detailed exegesis of this passage. Some of the main ideas are nevertheless unmistakable.

Wittgenstein discusses the distinction between physical objects and "objects" like sense data, obviously meaning what others have called phenomenological objects. He says that the grammar of the words used for the two is determined by their criteria of identification [Y]ou must remember that the grammar of the words of which we say that they stand for physical objects is characterized by the way in which we use the phrase "the *same* so-and-so", or "the identical so-and-so", where "soand-so" designates the physical object. (*The Blue Book*, 63, emphasis added)

Wittgenstein applies this point to the notions of what he calls "the geometrical eye" and "the physical eye". The latter is a "physical object" whereas the former is the perspectival point in my visual space. The geometrical eye is the origin of my visual space and as such a privileged phenomenological object. Whether we call the two different objects or not means merely that we are using language in two different ways. The important point is the general insight that

[t]he grammar of the word "geometrical eye" stands in the same relation to the grammar of the word "physical eye" as the grammar of the expression "the visual sense-datum of a true" to the grammar of the expression "the physical tree." In either case it confuses everything to say "the one is a *dif-ferent kind* of object from the other" ... (*The Blue Book*, 64)

Wittgenstein does not develop an explicit account for the different kinds of identification reflected in the misleading talk of perceptual and physical objects as "different kinds of objects". However, the main thrust of his remarks is clear. What is involved in the apparent contrast between the phenomenological and the physical is merely a different way of using language more explicitly, on different criteria of identification. Thus the *Blue Book* discussion is for Wittgenstein a burial of phenomenological vs. physical contrast as an ontological distinction.

An earlier account of the same matter is found in *Philosophical Remarks* V. Since Wittgenstein does not have an explicit logico-semantical framework at his disposal, he has to resort to another analogy. He proposes to

Compare the facts of immediate experience with the pictures on the [movie] screen and the facts of physics with pictures in the filmstrip.

If so then,

on the film strip there is a present picture and past and future pictures. But on the screen, there is only the present. (*Philosophical Remarks* V, sec. 51.)

However, this vivid analogy does not illuminate the difference between the two modes of identification which later became the key to the way Wittgenstein thought he could overcome the entire phenomenological vs. physical distinction.

Wittgenstein's insight into the role of different modes of identification is a remarkable anticipation of the later developments described above concerning the psychology of vision and of memory. It also marks an equally remarkable change in Wittgenstein's philosophical views. It meant for him a dissolution of the entire phenomenological vs. physical contrast because for him this distinction was essentially ontological. This distinction had played a crucial role in the dramatic changes in Wittgenstein's thinking October 1929, after having been one of the conceptual mainstays of his philosophy already in the *Tractatus*, albeit he did not use the term until the twenties. Now the contrast becomes for him as it were a distinction between two dialects within the overall language. This language might be called physicalistic if the term could be meaningfully used.

This explains the nearly total absence of the terms "phenomenology" and "phenomenological" in Wittgenstein's subsequent philosophy. This vow of silence is already operative in *The Blue Book*, where he speaks of "solipsistic" language use rather than a phenomenological one. It also explains why he could happily speak of memory time and information time even after he had decided that our language is at bottom physicalistic, including the conception of time. Indeed, the system of speaker-centered time reference described above, which comes close to Wittgenstein's "memory time", is not phenomenological in any reasonable sense. On the contrary, one can ask what is so memory-like in Wittgenstein's "memory-time" in the first place.

In discussing the contrast between the phenomenological and the physical in favor of a distinction between two modes of identification Wittgenstein nevertheless overlooks an interesting opportunity. He could have used the latter distinction as an interpretation of the former. I suspect that Wittgenstein did not fully realize how pervasive and how subtle the distinction between the two modes of identification is.

Furthermore, it would have made certain crucial parts of Wittgenstein's later philosophy easier to understand if the had spelled out the extent to which he was engaged in a project reverse to his and Russell's early "reduction to acquaintance", that is, reduction of the physicalistic "second system" to the phenomenological "first system". (Cf. here Hintikka and Hintikka 1985.) That reverse project was to show how (and on what conditions) we could speak in our ordinary physicalistic language of the phenomenological "world we live in".

A concluding remark may be in order. The results reached here have a methodological moral for interpreters of Wittgenstein. They show how dynamic his thought was. Frequently his remarks are best appreciated, not by trying to assemble from them somehow a coherent doctrine, but by seeing how they fit into the overall development of the subject, for instance how they anticipate important later insights. In some cases, these insights have been inspired by Wittgenstein's remarks. In brief, as Kipling did not say, "What do they know of Wittgenstein who only Wittgenstein know".

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