Frege, Russell and Wittgenstein
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Frege, Russell and Wittgenstein were founders (although not by any means the sole founders) of the analytic tradition in philosophy; but they did not found the philosophy of language, which has roots stretching back much further. Their principal contribution, indeed, could be regarded as being in the opposite direction: it is not so much that they applied philosophical methods to the study of language as that they applied linguistic methods to the study of certain problems in philosophy. In the course of this work they did develop ideas which shed light on language and how it functions. However, even this must be heavily qualified, since their main contributions were much more to the philosophy of logic (the study of the inferential role of sentences) than to the philosophy of language (the study of how language means what it does). In the summary of their contribution that follows we shall focus on the morals that can be drawn from it for modern work in the philosophy of language.

Frege

It is worth noting straightaway that mathematics played an important role in shaping the philosophical ambitions of all three of the philosophers we shall be considering. Frege was a mathematician for all of his professional life; Russell began as one and much of what he wrote had the philosophy of mathematics as its focus; and Wittgenstein, although he did not train as a mathematician, announced when he arrived at Cambridge in 1911 that it was the philosophy of mathematics that he wanted to study with Russell. The desire to secure the philosophical foundations of mathematics which all three of these philosophers shared plays a large part in explaining the attitude to language which – to begin with, at least – they chose to take. Frege began with the ambition of formulating a precise language – a *Begriffsschrift*, he called it – for the expression of thoughts. Where the thoughts to be captured are mathematical, Frege's ambition was an entirely plausible one, which he went some way towards realizing. It was natural, once the method had been shown to be successful in mathematics, that he and others should consider applying it more widely. However, the difficulties of formalization are much more severe where non-mathematical language is concerned, and the relationship between natural languages and their formalized correlates remains problematic to this day.

Perhaps the most remarkable of Frege's contributions to philosophy was what is nowadays called the linguistic turn (a term popularized by Rorty but coined by Gustav Bergmann). This was the movement that placed a concern with language at the centre not just of the philosophy of mathematics but of all of philosophy. What made it central was the realization that we approach the world via thought, but have no access to thought except via language. Hence, it was claimed, our enquiry into the nature of the world is best conducted via an enquiry into the nature of language.

One of the most important contributions made by Frege was to place language at the centre of philosophical, and in particular metaphysical, enquiry by recognizing its importance as a route to the structure of our thinking about the world. This approach was encapsulated in what has become known as the context principle, namely the injunction that we should not enquire after the meaning of a word in isolation, but only in the context of a sentence. Frege formulated this principle in order to apply it to the case of number-words, and hence to rule out the question as to what the numbers are, posed independently of the question how number-words are used in sentences. Applied more generally, the context principle led during the twentieth century to an approach which has become known as internalist. This approach seeks to discuss metaphysical questions about the structure of the world by means of a discussion of the structure of the language in which we represent the world.

If it were only a route to internalism, the context principle would not amount to an important contribution to the philosophy of language. However, it has also been influential within that area, as it has led to an extended debate about the overall shape that theories of meaning should have. Applied in its strongest form, the context principle would require that to understand a single word I need to understand the whole of language, and hence that each time I learn a new word my understanding of every other word must change slightly. Donald Davidson (1967, p. 308), for instance, has adopted the context principle in this strong form. Many twentieth century advocates of the context principle, of whom Michael Dummett is the most notable, have preferred to limit its application so that it does not have this holistic consequence.

Another Fregean contribution which has influenced the philosophy of language is his notion of thought and, derivatively, of sense. Thoughts are not, according to Frege, mental entities in the mind of an individual thinker: they are inter-subjectively available and hence cannot be wholly any one person's property. It is worth stressing here that the publicity of thoughts is not itself a distinctively Fregean contribution. What *is* distinctive is that Frege combined this with a second element, namely that what he meant by a thought was only that part of the content of the sentence that is relevant to inference. The residue, which he called ‘tone’, is no doubt important for the philosophy of language, but is not the concern of logic. By means of this restriction Frege hoped to explain the independence of logic from the mind. His target, that is to say, was in the first instance the view not that language is psychological, but that logic is. What he railed against was the view, popular in the late nineteenth century, that logic is a codification of how we think. Frege held that this is utterly wrong-headed: logic, he claimed, codifies the laws of truth, not of thought; the laws of how we *ought* to think if we wish to aim at the truth, not of how we do actually think.

Much of the later interest in Frege’s notion of sense has focused on its application at the sub-sentential level, to proper names in particular. In ‘On sense and reference’ Frege argued that in order to explain the informational content of identity sentences such as ‘Hesperus=Phosphorus’ we cannot appeal merely to what the two sides of the equation refer to, since this is the same in both caes (namely the planet Venus). Nor can we explain the content solely in terms of the difference between the *words* ‘Hesperus’ and ‘Phosphorus’, since that would,

according to Frege, make the content linguistic rather than, as it should be, astronomical. Nor can we base our account on the difference in the ideas which I associate in my mind with the two words, since these, being mental, are intrinsically private, whereas the informational content of the equation is something public – something which you can learn from me when I tell it to you. For these reasons Frege felt driven to the conclusion that the contributions of the words 'Hesperus' and 'Phosphorus' to the meanings of sentences in which they occur – what he called the *senses* of the words – are different, but are inter-subjectively available items which are not to be identified either with the words themselves or with anything mental.

In 'On sense and reference' (1980a) Frege motivates the notion of sense for proper names primarily on the basis of the need to explain inter-subjective communication. The notion that there could be such a thing has seemed puzzling to many philosophers since, from Russell to Kripke and beyond. When he was asked some years later to justify his view, Frege invoked (1980b, p. 80) the example of two explorers, one of whom comes across a mountain called Aphla, the other a mountain called Ateb. Only when they plot their discoveries on a map do they come to realize that Aphla and Ateb are the same mountain, but seen from different directions. In the form in which Frege told the story, it seems to make again the point about publicity: the notion of sense is required if we are to explain how communication between individuals is possible. It is interesting to note, however, that the problem arises even if we revise the story so that only one explorer is involved. On this retelling, the moral of the story seems to concern the nature of the world as much as the structure of thought. It is because the world has unexpected and unknown aspects that we need a notion of sense capable of making identity statements non-trivial.

I have said that Frege's principal concern was with the philosophy of logic, not of language. In a few places, though, Frege did go beyond these narrow bounds. This is particularly notable in 'On sense and reference', where the discussion of indirect speech goes some way beyond anything that would have been necessary if his interest had been strictly limited to the foundations of mathematics.

One ongoing theme in Frege's writings is the complicated relationship between language and thought. In his late writings he seems largely to have abandoned the idea that language was a good guide to the structure of thought, but his reasons are not wholly clear. The most obvious one might be his paradox of the concept horse, but he did not himself take this paradox as seriously as he might have done: it was left to Wittgenstein to do that. More important for Frege seems to have been the failure of his logicist project for grounding arithmetic. He seems to have thought that this was somehow due to a mismatch between language and thought, but he was unable to articulate the nature of the mismatch with any clarity.

Russell

What is often taken to be Russell's most famous contribution to the philosophy of language is his theory of descriptions (Russell, 1905), according to which

sentences containing definite descriptions should be analysed so that the description disappears and its role is taken over by quantifications. However, Russell did not originally intend this theory as a contribution to the philosophy of language at all, and for two reasons. The first was that, like Frege, he was at this stage more interested in the logical rather than the grammatical form of propositions. The difference in form between "John is bald" and "The present King of France is bald" is one which emerges when we consider how these sentences behave when we negate them. The latter sentence has two negations with different truth conditions ('The present King of France is not bald' and 'It is not the case that the present King of France is bald'), whereas the former only has one negation. Russell conceived of this difference as a logical rather than grammatical one. For him, therefore, the theory of descriptions was a demonstration that the logical and grammatical forms of a sentence may be different.

The second reason that Russell did not see himself as contributing to the philosophy of language is one that emerges when we recall the reason why he was interested in the King of France's hair in the first place. For him this was a proxy for the much more important case of the class of all classes which do not belong to themselves. In other words, if he was concerned with language at all, it was only the language of mathematics, not that of ordinary life. So his aim was not to give an account of all the various uses of the word 'the' in ordinary language. The fact that his theory does not cope well with 'The whale is a mammal' did not seem to him to be an objection to it.

How far Russell was from conceiving of 'On denoting' as a contribution to the philosophy of language may be gauged from his response to Strawson's 'On Referring'. Strawson had criticized the theory of descriptions because there are various features of our use of definite descriptions which it fails to analyse correctly. Russell's reply was that he was 'totally unable to see any validity whatever in any of Mr Strawson's arguments' (Russell, 1957, p, 385).

During the most philosophically influential part of his working life – the decade or so immediately preceding the First World War – Russell did not begin by being interested in language in its own right at all. Nonetheless, 'On denoting' did have the effect of forcing him to consider the role of language, even within mathematics, more carefully than hitherto, because it showed him that the surface grammar of a sentence may mislead us as to the true form of the thought the sentence expresses. He came to realize, as Frege had by a different route, that if language is a medium for the expression of thought, it is not a wholly transparent one.

Russell's work during his most productive phase contributed to a developing research project which might be thought of as an analysis of language but was heavily influenced by epistemological concerns deriving from Descartes. The underlying language, that is to say, was to consist of elements corresponding to whatever is most immediate in experience. The project then consisted in the construction, from these elements, of linguistic items corresponding to the objects of the external world as we ordinarily conceive of it. Even when Russell gave more explicit attention to language in his later work (such as the Inquiry), the

approach he took was shaped by the epistemological concerns of his project, thus limiting the interest of this work to anyone who does not share these concerns.

The *Tractatus*

The *Tractatus* is famous for its advocacy of a so-called 'picture theory of language', but this is at best a misnomer, since what constitute pictures of the world are, according to the theory, not the sentences of ordinary language but the propositions which those sentences express. For this reason 'picture theory of thought' would be a less misleading title for what Wittgenstein intended.

According to the picture theory what enables a picture to represent a situation is that the structure of the picture is identical to the structure of the situation. If the aim of semantics is to explain how propositions come to have meanings, then according to the picture theory there is only one task which semantics needs to perform, namely that of connecting the components of the proposition with the components of the world. The further task of explaining how the way in which the components are assembled succeeds in being expressive of a certain situation drops away, since it is just the same way that the components of the world are assembled if the proposition is true. For Wittgenstein, therefore, the reason why thought succeeds in latching onto the world is that its structure is identical to that of the world.

I have stressed that it is not the sentence but the proposition (or, in Frege's language, the thought) which according to the picture theory shares its structure with the world. In order for sentences also to share this structure it would be necessary for us to construct a language which mimicked it. In the *Tractatus* Wittgenstein went some way towards constructing such a language, although at times he seems to have been more concerned with explaining how Frege's and Russell's formal languages fell short of this ideal than in the details of how his own construction was supposed to work.

The idea that the world is one that is represented in thought is at the heart of Wittgenstein's atomism, since he moves from an argument that determinate thoughts are atomistic to the conclusion that the world is correspondingly atomistic. Moreover, in a further simplifying move he claimed that these atoms are simple not only in the sense that they have no parts but also in that they do not have distinct aspects: an atom which is presented to me in one way cannot later be presented to me in another. By this means Wittgenstein ruled out the possibility which Frege had used the example of Aphla and Ateb to highlight. From this Wittgenstein derived his essentially solipsistic conclusion that there cannot be different perspectives on the world.

One theme which lies just below the surface of much of Frege's philosophical writing is the relationship between thought and the world. Frege took it as given that the structure of thought mirrors the structure of the world, so that the distinction between saturated and unsaturated components of the thought corresponds precisely to a distinction between saturated and unsaturated components of the world. However, Frege's conception of objects prevented him from holding that this neat isomorphism holds within these grammatical

categories. Wittgenstein, by rejecting Frege's notion of objects, was able to extend Frege's conception of thought mirroring the world much further.

The picture theory can thus be seen as representing the high point of Frege's linguistic turn as a method in metaphysics, since it holds out the hope that if we constructed an ideal language, and thereby uncovered the structure of thoughts, we could then read off the structure of the world directly from them. However, the logically perfect language is offered in the *Tractatus* more as an ideal than a practical reality, and by the time he finished the book he had probably begun to doubt whether the ideal was realizable at all.

By sidelining ordinary language in this manner Wittgenstein left rather obscure what philosophical purpose is served by studying it. He said that 'all propositions of our colloquial language are actually, just as they are, logically completely in order' (1922, 5.5563), but it is an interesting question quite what he meant by this, and it is a tension that remains unresolved in the *Philosophical Investigations* (see Wittgenstein 1953, §98).

Nonetheless, Wittgenstein still advanced in the *Tractatus* the ambition of using the analysis of language to solve philosophical problems. He proposed a model according to which most of the things we ordinarily say could in principle be expressed in the ideal language. Some things we say resist translation into this ideal language and are thus revealed to be nonsense masquerading as sense. In particular, the Tractatus problematizes much of the philosophy of language, since its explanations of how language comes to have meaning inevitably make use of the very features of language which it seeks to explain.

One instance of this is the notion of a grammatical category. In later life Wittgenstein was fond of quoting, as a guide to good philosophizing, a maxim of Hertz to the effect that our minds will 'cease to ask illegitimate questions' when we remove unnecessary variables from our specification of a problem. In the *Tractatus* we can see Wittgenstein applying this maxim in order to reject the conception of grammatical categories as akin to pigeonholes into which words can be sorted (a conception which he accused Russell of holding). According to Wittgenstein the 'grammatical category' to which a word belongs is a label for certain structural features of its meaning, not something which can be separated from the word and discussed in isolation from it.

Later Wittgenstein

One way of summarizing the difference between early Wittgenstein and late is that in his later work he abandoned hope of a certain sort of tidying up of language. So what in the *Tractatus* is described as '*the* language which alone I understand' (5.62) is replaced by a motley of overlapping language games. Whatever the role of ideal language really is in the *Tractatus*, it is clear that assertoric sentences are there taken as primary, whereas in the *Philosophical Investigations* what is emphasized from the start is how many and various are the roles that language has.

The later Wittgenstein also gave up on Frege's notion of sense, if by that is meant the idea of something quite determinate which a sentence, on a particular occasion of utterance, can be said to mean. In the *Investigations* Wittgenstein offers numerous examples intended to loosen our grip on this kind of notion of meaning. Modern philosophers of language influence by Wittgenstein sometimes suggest that meaning is so sensitive to context as to make the project of supplying a theory to account for it almost hopeless.

Another issue which the later Wittgenstein addressed was the relationship between the private and the public. I mentioned earlier that Frege characterized the mental as private and emphasized, by contrast, the inter-subjective availability of the content of our utterances, from which he deduced that these contents cannot be mental. What Wittgenstein did was to question what role the private realm of the mental can *ever* play in explaining linguistic meaning. Understanding the sense in which a private language is impossible is important, he thought, since it does a great deal to delimit our explanation of how public language is possible.

Indeed, one of Wittgenstein's main targets in his later work was the whole conception on which Russell's Cartesian project was based. He questioned, that is to say, the assumption that our knowledge of our own ideas is somehow more certain than anything else, and hence that the correct method of epistemological enquiry is to work from the inside outwards. This critique, if correct, is of methodological importance for the philosophy of language much more widely, since the Cartesian assumption is often used as an unargued premise to motivate the direction in which explanations proceed.

In the *Investigations* Wittgenstein also offered a critique of an 'Augustinian' account of language, by which he meant an account which sees it as possible to build up a theory of linguistic meaning with names as the starting point. In a way, Wittgenstein's objection seems now to be a variant of the one he had against what he saw as Russell's tendency to think of grammatical categories as being like pigeonholes. Augustine, he says, 'describes the learning of human language as if the child ... already had a language, only not this one' (1953, sn 32). The extent to which the child might be said to 'have a language, only not this one' is of course something that remains controversial.

So far, though, all of this is largely negative. Was there anything positive which the late Wittgenstein had to offer? It is sometimes said that he advanced a 'use theory of meaning', but on its own this tells us very little, since it is hard to see how a credible theory of meaning could fail to appeal to how we use words and hence be in some sense a 'use theory'. What Wittgenstein intended, however, seems to have been not so much a theory as a method. This may well go some way towards explaining the apparent negativity of much of his later philosophy (philosophy as therapy).

Another suggestion that has been made is that ordinary language philosophy is an application of Wittgenstein's methods. It was he, after all, who described his task as being 'to bring words back from their metaphysical to their everyday use' (1953, §116). However, as a matter of history the influence of the later

Wittgenstein on Oxford ordinary language philosophers such as Austin and Ryle seems to have been rather slight, and the commonality of their concerns somewhat superficial.

Morals

What morals do these authors offer for modern work in the philosophy of language? The issues we have been discussing are almost all related to the notion of content – whatever it is that is expressed by a piece of language. As we have noted here, their focus on logic led them to focus on narrow notions of content from which those aspects not relevant to inference have been excluded. Yet such narrow notions plainly do not tell the whole story. Moreover, even within the narrow scope of logic, we should take note of the difficulties our authors found when they tried to determine what this content is. It is curiously hard to find an appropriate notion of content that is stable enough to have a determinate structure capable of precise theoretical investigation.

It follows, too, that it is important not simply to assume that the link between language and thought, which the founding fathers highlighted, is a wholly transparent one. The starting point is the idea that a sentence of one language can have the same content as one in another. The task of the translator, one might say, is to preserve as much of the content as possible in the process of translation. But as soon as we suppose that there is a notion of content which can be preserved, we have a puzzle as to its structure, since languages differ widely in how they say things.

Another moral is the need for consideration of the role of outlying cases. Language is messy, and almost every generalization one cares to make has exceptions. What is not so clear is how seriously we should take the exceptions. Our attitude to these will presumably depend on what we take the purpose of our work to be. If we have metaphysical or epistemological pretensions, then perhaps a few counterexamples are not so troubling. If, on the other hand, our purpose is to explain language as it exists, any policy of ignoring counterexamples would need to be theoretically motivated. We need, that is to say, to decide what our purpose is first, and only then proceed to offer a theory.

Above all, though, we need to think through the implications of two points made by Wittgenstein but deriving ultimately from Frege: first, that it makes no sense to enquire about a grammatical type independent of its instances; second, that it remains one of the central challenges for the philosophy of language to explain how its account of meaning can be related to our own mental lives.

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Further reading

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