

Introduction

This Element provides an introductory overview of Wittgenstein's philosophy of logic and his view of the contribution of logic to philosophy and its methodology. I start with the early Wittgenstein's modification of Frege's and Russell's philosophies of logic. Importantly, although Wittgenstein's early philosophy of logic is of interest in its own right, it also constitutes the background for his later philosophy of logic and methodology to which most of this Element is dedicated. As Wittgenstein explains in the preface to the *Philosophical Investigations*, his later work is, to a significant extent, a response to the 'grave mistakes' of his early philosophy. Nevertheless, he also maintains that his early philosophy constitutes the background against which his later thought can 'be seen in the right light'. This can be understood in the sense that in his later work Wittgenstein seeks to do both, to reconceive and to correct his early philosophy of logic as well as to further develop some of its key insights, for example the point that logical necessity can't be expressed in terms of true/false propositions or theses, and that logic therefore can't be clarified in such terms. In what follows, besides contrasting Wittgenstein's philosophy of logic with those of Frege and Russell, I note certain similarities and differences between Wittgenstein and the views of other analytic philosophers who have likewise sought to develop this approach through considerations relating to methodology and philosophy of logic, namely Rudolf Carnap, W. V. Quine, and Saul Kripke. This provides a context to Wittgenstein's philosophy of logic and philosophical methodology which, I hope, helps to assess his contributions to philosophy in relation to contemporary analytic philosophy.

To start from his early work, in his *Tractatus Logico-Philosophicus* Wittgenstein sought to introduce a logical methodology for dealing with philosophical problems, writing in the preface that the book 'shows . . . that the way these questions are posed rests on a misunderstanding of the logic of our language'. Moreover, he states that 'I'm of the opinion that the problems have in essentials been finally solved' and that 'the *truth* of the thoughts communicated here seems to me unassailable and definitive'. This raises the question, what problems did Wittgenstein have in mind? In a letter to Russell he says that he has written a book where 'I believe I've solved our problems finally', indicating that he means the problems relating to logic he had been working on with Russell (CL: 111).¹ Later in the summer of that year, however, he tells

¹ The preface is dated to 1918, whilst this letter is from March 1919.

I have often amended translations from Wittgenstein's works, sometimes using both the Ogden and Pears-McGuinness translations as the basis of quotations from the *Tractatus*. When no published translation exists for quotations from Wittgenstein's *Nachlass*, the translation is mine.

Russell in response to his queries that Russell has failed to understand his book's 'main contention' pertaining 'to the cardinal problem of philosophy', which concerns the question of what can be said in language and what can only be shown by language (CL: 125). Thus, it isn't clear to what extent Russell and Wittgenstein ultimately shared an understanding of relevant problems, even though 'our problems' certainly must have to do with their collaboration on logic. Relatedly, Wittgenstein describes his concerns in his pre-Tractarian *Notebooks* by saying that his 'whole task' consists in 'explaining the nature of proposition', which, however, also means explaining the 'nature of all being' (NB: 39). At another point he describes his concern with the 'foundations of logic' as having extended to cover 'the nature of the world' (NB: 79). And indeed, for the early Wittgenstein these questions about the nature of propositions, foundations of logic, and the nature of the world or being did constitute different aspects of a single question.²

More specifically, the central question of logic, as understood by Frege and Russell, and Wittgenstein following them, was to determine the principles that govern thinking that aims at a truth. Accordingly, the notion of a proposition (Russell) or a thought (Frege) as something capable of being true/false occupies a central place in Frege's and Russell's logical systems, constituting the core notion of their logical languages. Following them, the early Wittgenstein likewise sought to explain the logical principles governing true/false thought or language use by clarifying what he called 'the general propositional form' or 'the essence of proposition'. Thus he aimed to account for the principles governing thinking that aims at truth in terms of one single core notion, motivated by the idea that logic constitutes the standard of simplicity and clarity. This would then also provide an account of the essence of the world or all being, insofar as they constitute objects of thought (TLP 4.5, 5.45–5.4541, 5.47–5.471).

But whilst the preceding is already an ambitious set of problems to solve, Wittgenstein's aspirations may have been even more far-reaching. Following Russell in regarding all genuinely philosophical problems as logical, he seems to have thought that the logical method of the *Tractatus* would contain the key to the solution of not just the problems he was directly addressing but all philosophical problems. Thus understood, in claiming that 'the problems' have been solved 'in essentials' he's saying that the logical methodology introduced in the book makes it possible to solve any philosophical problem whatsoever, including problems not discussed in the book. This brings to view the programmatic character of Wittgenstein's book, criticized by him later. And indeed, perhaps

² This point has been emphasized by Marie McGinn 2006.

genuinely believing that he had managed to spell out *the* method that could be used to solve all philosophical problems, Wittgenstein left philosophy. By the time he returned about ten years later, however, he had realized or came to realize that his early account of logic covered only part of the functioning of language/thought. It was not complete in the sense of accounting for all the logical principles governing thinking that aims at truth. Consequently, although the *Tractatus*' logical methodology might be helpful in tackling some philosophical problems, it couldn't be assumed to contain the key to the solution of them all.

In the *Philosophical Investigations*, in the work leading to it from the early to mid 1930s, and thereafter, Wittgenstein sees matters differently, although he holds on to the conception that all philosophical problems are logical. 'Merely recognizing the philosophical problem as a logical one is progress. The proper attitude and the method accompany it' (LW I, §256/MS 137: 104b).³ Mentioning the concepts logic and sentence or proposition (*Satz*) in the preface among the six key themes of the book (in addition to meaning, understanding, foundations of mathematics, and states of consciousness), he had meanwhile realized that 'Language is much more complicated than the logicians and the author of *Tractatus* have imagined' (MS 152: 47; cf. PI §23, RPP I §920). Partly the 'grave mistakes' in his earlier book then relate to this – but also to more general assumptions about logic and philosophy that got him trapped in this simplistic conception of language. Accordingly, an important issue Wittgenstein addresses in his later philosophy is the problem of dogmatism, relating to how the assumptions of philosophical theorizing lead philosophers to false simplification, and how it's possible to simplify and idealize in philosophy without falsifying.

It's controversial whether the later Wittgenstein 1) rejects or 2) 'merely' radically rethinks and further develops the *Tractatus*' approach that involves regarding language as a calculus. On the first interpretation Wittgenstein rejects the conception of language as a calculus and the view that the uses of language can be clarified by means of calculus-based logical methods. As Peter Hacker, a leading representative of the first approach, explains, Wittgenstein's later philosophy of language 'repudiates conceptions of language as a calculus of definite rules on the model of the predicate calculus' (Hacker 1996: 128). 'In place of the conception of language as a calculus of rules, we are offered a conception of a language as a motley of language-games' (Hacker 1996: 125). This implies

³ This remark (from 1948) is made in connection with a discussion of the problem of whether all behaviour could be dissimulation, but I believe it generalizes. In his *Nachlass* Wittgenstein often stops to make general remarks on philosophy and its methods in the midst of dealing with specific problems.

a radical break between Wittgenstein's early and later philosophy. Rather than developing his early approach by introducing new methods and correcting the errors of his early philosophy of logic, the later Wittgenstein replaces his early account of language with a different one. Corresponding to this, he substitutes for his early logical method an approach to philosophy as a grammatical investigation that clarifies the rules according to which language is used. Whilst language on this account 'is indeed rule-governed', it's not governed by strict and definite rules like a calculus, but only in the 'more or less loose manner in which games are rule-governed' (Hacker 1996: 125).

On the second interpretation the later Wittgenstein's primary objection is to his early view that there could be something like *the* logical method, a definite logical methodology universally applicable in all areas of thought and language use that could be used to clarify all sensible forms of language use, and to solve all philosophical problems. As he emphasizes:

In philosophy it is not enough to learn in every case *what* is to be said about a subject, but also *how* one must speak about it. We always have to begin by learning the method of tackling it.

Or again: In any serious question uncertainty extends to the very roots of the problem.

One must always be prepared to learn something totally new.

Among the colours: kinship and contrast. (And that is logic.) (RC §§43–46/MS 173: 11v–12v; cf. PI §133)

On the second interpretation Wittgenstein continues to regard calculus-based logical methods as a special case of logical methodology. Rather than rejecting and replacing the *Tractatus*' account of language with a different one, he recognizes that different logical or philosophical methods involve different conceptions of language, none of which can be adopted as *the* true one that excludes all others similarly to a true philosophical thesis. As this indicates, the controversy extends to the question of whether Wittgenstein's later approach implies a commitment to some particular account of language, comparable to the *Tractatus*' commitment to the view of language as a calculus. Although this Element doesn't aim to solve this interpretational dispute, I will outline reasons to think that Wittgenstein's later philosophy is best understood as radically rethinking the *Tractatus*' approach (see Section 2). Regardless of which interpretation might get Wittgenstein right on this point, if either, both nevertheless agree that Wittgenstein continues to think of philosophical problems as involving logical-linguistic unclarity, and that their solution requires clarification of relevant linguistic locutions. The dispute concerns specifically the relation between logic in the early Wittgenstein and his later grammatical investigations.

Following the discussion of Wittgenstein's early philosophy in Section 1, and his criticisms of his early approach in Section 2, Section 3 describes the novel logical methods introduced by the later Wittgenstein, and the new kind of philosophical/logical naturalism developed in his later work. In order to illustrate the complexity of language and to connect Wittgenstein with certain more recent discussions in logic and philosophy thereof, Section 4 outlines Wittgenstein's views on different kinds of names in relation to Russell, John Searle, and Kripke.

1 Early Wittgenstein's Reconfiguration of Frege's and Russell's Logic

As Wittgenstein acknowledges in the Preface to the *Tractatus*, the greatest stimulus for his thought came from Frege and Russell. This has to do with their development of logical methods to be used for logical analysis and for addressing philosophical problems, and with questions about the foundations of logic to which the development of such methods gives rise. Here the notion of a logical language (symbolism or notation) of the kind that Frege and Russell had developed independently of one another plays a crucial role.⁴ Inspired by G. W. Leibniz's idea of a universal language, characteristic of a Fregean–Russellian logical language is that it would enable one to bypass the vagueness and ambiguities of natural language so as to express conceptual content precisely, and that in it inferences would be governed by strict logical rules that prevent fallacies, unlike the rules of natural language (Frege 1882–3/1972b, 1882/1972c). A language of this kind could then be deployed as an instrument for the logical analysis of judgements and concepts, thus providing us with 'a perspicuous presentation of the forms of thought' (Frege 1882/1972c: 89). Or, as Russell emphasizes, it would help to see beyond merely linguistic distinctions to which nothing corresponds in reality, and 'show at a glance the logical structure of the facts asserted or denied' (Russell 1918/2010: 25).

The significance of such a logical language is indicated by Frege's originally coming to develop his concept-script (*Begriffsschrift*) for the purpose of clarifying the notion of a number as part of his attempt to establish a foundation for arithmetic, whereby he was forced to realize the unsuitability of natural language for the task due to its imprecision (Frege 1879/1972a: 104). However, Frege was fully aware of the general importance of such a logical language for philosophy, that is, how it enables one to keep track of inferences and their presuppositions, so that presuppositions won't slip in unnoticed, creating gaps in inferences (1882/

⁴ Naturally, they drew on work of earlier mathematicians and logicians. For the history of relevant developments, see Grattan-Guinness 2000.

1972c: 89). Russell went even further in his optimism about the new logical methods, asserting that the ‘new logic’ would make progress possible in philosophy comparable to the progress made in physics after Galileo’s introduction of mathematical methods (Russell 1914/1926: 68–69, 243). Further, Russell maintained that any properly philosophical problems could now be recognized as logical, and that with the help of the new logical methods they could be solved through a piecemeal collaborative investigation in a way that ‘must command the assent of all who are competent to form an opinion’ (Russell 1914/1926: 69; cf. 43). Thus, it seemed that philosophy could at last embark on a path of progress similar to the sciences, instead of being an idiosyncratic enterprise where there are as many views as there are philosophers.

Wittgenstein accepted Frege’s and Russell’s views about the significance of a logical language, and gave it an even more important place as the proper way to articulate an account of logic, instead of logical theses. In the process he exposed certain tensions in Frege’s and Russell’s views with the purpose of developing their ideas further, eventually turning some of their ideas back against them and the philosophical tradition more generally. Significantly, Wittgenstein also followed Russell on the point that philosophical problems are logical. Insofar as they have a solution, this must therefore be sought by means of a logical investigation. However, Wittgenstein was also convinced that the way in which philosophical problems have been traditionally posed involved fundamental logical confusions.

Most propositions and questions that have been written about philosophical matters are not false, but nonsensical. We cannot, therefore, give any answers to questions of this kind, but only establish their nonsensicality. Most questions and propositions of philosophers result from a failure to understand the logic of our language. . . .

And so it is not surprising that the deepest problems are really *not* problems. (TLP 4.003)

The right response to philosophical problems would therefore not be trying to answer the questions in the terms in which they are expressed. It’s to logically examine the questions and statements of philosophers with a view to clarifying logical unclarity or confusions underlying them. Accordingly, Wittgenstein writes: ‘The correct method of philosophy would be this: To say nothing except what can be said . . . and then always when someone wished to say something metaphysical, to demonstrate that he had given no meaning to certain signs in his propositions’ (TLP 6.53).⁵ Thus, philosophy is to be understood as an

⁵ This is not the method practised in the *Tractatus* which, as I will explain, employs nonsense to introduce a methodological framework for logical analysis. Logical analysis then allows one to

activity whose aim is not the articulation of theories or doctrines but ‘the logical clarification of thoughts’, whereby the result is not ‘philosophical propositions’ but ‘propositions becoming clear’ (TLP 4.112). Through such clarifications philosophy then aims to ‘demarcate the thinkable from within through the thinkable’ or the ‘unsayable by clearly laying out the sayable’ (TLP 4.114, 4.115; cf. 4.112–4.116). However, it’s important not to assume that the term ‘metaphysical’ in 6.53 is used in a pejorative sense, more or less synonymous with bad philosophy, as it was used by the logical positivists inspired by Wittgenstein (see Carnap 1931/1959).⁶ Rather, Wittgenstein seems to use ‘metaphysical’ in a specific sense, with metaphysics involving a specific kind of confusion connected with attempts to articulate true propositions or theses about universal, exceptionless, non-empirical necessities pertaining to the essence of things; that is, to assert necessary truths such as metaphysicians have aspired to do. (He continues to criticize this approach in his later philosophy; Z §458/RPP I §949.)

As Wittgenstein sees it, there’s a ‘confusion, very widespread among philosophers, between internal and proper (external) relations’, an internal property being one in the case of which it’s ‘unthinkable that its object doesn’t possess it’, and likewise for internal relations (TLP 4.122–4.123). Corresponding to this, the confusion about how philosophical problems are posed, spoken of in the *Tractatus*, can be understood as having to do with attempts to articulate theses about necessary or essential properties or relations that are constitutive of the identity or essence of relevant objects or states of affairs. If Wittgenstein is right, it isn’t possible to speak of such essential necessities in terms of true propositions or theses, contrary to what metaphysicians have assumed. Instead, a different approach must be adopted that takes its lead from the following: ‘The existence of an internal property of a possible state of affairs is not expressed by a proposition, but it expresses itself in the proposition which presents that state of affairs, by an internal property of this proposition’ (TLP 4.124); ‘The existence of an internal relation between possible states of affairs expresses itself in language by an internal relation between the propositions presenting them’ (TLP 4.125). It’s in connection with this issue of the expressibility of what is necessary or essential that the Fregean–Russellian logical language acquires new philosophical significance for Wittgenstein, and he

practise philosophy purely formally, without putting forward any substantial propositions about reality, only focusing on the clarification of what is said, as described in 6.53. In laying out the method for logical analysis, the *Tractatus* can be described as concerned with the foundations of logic, clarifying its nature and central notions.

⁶ Early on, logical positivism significantly affected the interpretation of Wittgenstein’s philosophy, whilst in private correspondence in the early 1930s Wittgenstein expressed the wish not to be associated with it as a school (see Kuusela 2019c: 258–9).

moves beyond the philosophical positions and philosophies of logic of Frege and Russell, as I will explain. An important question now arises about the right way to express essential logical or philosophical necessity, a question which Frege and Russell weren't particularly concerned with beyond their rejection of psychologistic accounts of logic. (Psychologism portrays the principles of logic, not merely the capacity of humans to grasp them, as dependent on human psychology, thus regarding the principles of logic as empirical principles of psychology.)

The confusion underlying philosophical questions and propositions with which Wittgenstein is occupied can thus be connected with what he described to Russell as the cardinal problem of philosophy and the main contention of his book, that is, what it's possible to say in language versus what language, in Wittgenstein's terminology, can only show (CL: 125; cf. introduction). The widespread confusion about internal properties and the problem about how philosophical problems are posed can therefore be identified as partly motivating Wittgenstein's philosophy of logic. (It seems fair to describe the problem of whether it's possible to articulate truths or true theses about essential non-empirical necessities as the cardinal problem of philosophy, since this is just what metaphysicians have tried to do, mostly taking this possibility for granted, with Hume and Kant as important exceptions.)

1.1 Wittgenstein's Rejection of the View of Logic as a Science and of Logical Theses

So why does Wittgenstein think it's not possible to express that which is necessary and essential, as opposed to merely contingent, in terms of true/false propositions or theses? Why can't there be true propositions/theses about logic, and how can logic be clarified, if not by means of propositions/theses? The first step towards explaining this can be taken by outlining Wittgenstein's reasons for rejecting Frege's and Russell's accounts of logic as a science that establishes substantial truths about logic, including the principles governing correct inference, and which, on this basis, prescribes how we ought to think and infer.⁷

Wittgenstein's basic point is simple. In order for thinkers and language users to be able to think or speak, including inferring and judging the correctness of inferences, they must already know – tacitly, if not explicitly – the logical principles governing thought and language. Otherwise they couldn't think or

⁷ Whilst the interpretive tradition has usually explained Wittgenstein's rejection of theses or theories as a consequence of his own theory of language, the so-called picture theory of language, this is, arguably, to put the cart before the horse (see Kuusela 2021 and forthcoming). I return to this in Section 1.4.

use language to begin with, it being part of the linguistic capacity of speakers that they can tell, with certain fallible reliability, properly formed propositions from nonsensical strings of signs, and that they, for example, understand that nothing follows from mere gibberish. Indeed, given the short history of logic in comparison to the history of humanity, it seems clear that people had been making inferences and judging their correctness long before logicians came around, and began systematizing the principles governing inferences. Nor could logicians have taught people how to infer correctly. In the absence of a capacity to use language no one would have understood their instructions and principles.

The principles of logic, therefore, must be assumed to be already known to thinkers and language users by virtue of their being thinkers/language users.⁸ But if so, logic can't be like the sciences that establish truths about their objects of investigation and then inform others about their discoveries. Although it makes perfect sense to inform someone about the discovery of truths or facts – for example, whether there's life on Mars – no one can be informed about what they already know. Interestingly, Wittgenstein's view of logic as already known to thinkers and speakers is foreshadowed in Russell's lectures in 1914, where he says that those capable of understanding discourse must already possess a tacit comprehension of logical forms – which means that they must already have a comprehension of the principles governing inference, since logical inference according to Russell depends on logical form (Russell 1914/1926: 53). But it was left to Wittgenstein to expose this tension in Russell's philosophy of logic. For it can't be that both a) thinkers/speakers already know the principles of logic, and b) logic is a science that informs thinkers/speakers about those principles, establishing on this basis prescriptions that they must respect in order to think/speak logically. Accordingly, Wittgenstein criticizes Russell's theory of types for its aim of establishing such prescriptions (TLP 3.331–3.333; CL: 125). Likewise, *pace* Frege, logic can't be understood as a 'normative science' that prescribes how one must think in order to reach the truth (Frege 1897/1979: 128).

Instead, the task of logic is to clarify to thinkers and language users the principles of logic that they already know; logic articulates clearly and by so doing explicates relevant principles that thinkers/speakers already tacitly know. Rather than a prescriptive science, logic is thus a clarificatory discipline. Wittgenstein explains the key point in terms of a principle regarding the status of logic: 'Logic takes care of itself; all we have to do is to look and see how it

⁸ It's part of the notion of being a thinker or a language user that they can think and use language. Insofar as this capacity involves a comprehension of logic, as both Wittgenstein and Russell maintain, comprehension of logic can be regarded as part of the capacity to think and use language. As noted, however, this doesn't mean that thinkers/speakers can articulate those principles or have an explicit knowledge of them.

does it' (NB: 11/MS 101: 39r), a point which he described as 'an extremely important and profound insight', when first noting it down in 1914 (NB: 2/MS 101: 13r). Accordingly, the principle that logic looks after itself or takes care of itself constitutes a crucial part of the *Tractatus*' philosophy of logic. Logic takes care of itself in that it doesn't need to be upheld or guarded by the prescriptions of logicians. What counts as a correct inference and what it makes sense to say doesn't depend on logicians, but on thought and language themselves, and on how, corresponding to this, we use our signs to express ourselves. As the *Tractatus* explains:

Logic must take care of itself.

If a sign is *possible*, it must also be able to signify. Whatever is possible in logic is also permitted. ('Socrates is identical' means nothing because there is no property called 'identical'. The proposition is nonsense because we have failed to make an arbitrary determination, not because the symbol, in itself, would be illegitimate.)

In a certain sense we cannot make mistakes in logic. (TLP 5.473, cf. 5.4733)

That we can't make mistakes in logic 'in a certain sense' doesn't mean that we are infallible about it. In that case there would be nothing to clarify, no room for logic and philosophy as clarificatory activities. Wittgenstein's remarks on the logical confusions of philosophers make clear that this isn't what he thinks. When such logical unclarities or confusions arise, we must clarify the workings of thought and language, and how linguistic signs have been used in trying to express thoughts or propositions. Crucially, however, our mistakes are confusions about what we already know. Logical clarifications constitute reminders about what we already know, not prescriptions.⁹

The preceding doesn't yet exhaust the significance of Wittgenstein's principle that logic looks after itself. This insight also makes unnecessary any appeal to self-evident truths in logic, contrary to Frege and Russell. Integral to their accounts is that logic (like geometry) is an axiomatic science, based on foundational truths or axioms. Such axioms Frege and Russell regarded as self-evidently true propositions, although neither of them gave a satisfactory explanation of self-evidence and how it could be objectively appealed to.¹⁰ By

⁹ Although 'reminder' is a term from the later Wittgenstein, remarks such as those just quoted from the *Notebooks* (NB: 11/MS 101: 39r) seem to justify its application to Wittgenstein's early philosophy too. This doesn't mean that reminders in Wittgenstein's early and late philosophy mean exactly the same. The later Wittgenstein criticizes the *Tractatus* for hypothetical theorizing, instead of only saying what everyone knows (see Kuusela 2011; cf. McGinn 2006: 32–3).

¹⁰ The problem is that what one person regards as self-evident, another might not. What is seen as self-evident may also vary over history. Self-evidence, therefore, seems to be a merely psychological or sociological notion. (Russell tried to account for it in terms of non-inferential intuitive knowledge, but eventually abandoned the attempt.)