Remarks on Ludwig Wittgenstein's whole aim in his way of doing philosophy

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"Wanting to solve all problems and answer all questions would be impudent boasting and such extravagant self-conceit that one would instantly forfeit all trust." (Kant 1998 [1781/1787]: B 504)

Abstract: In *The Principles of Mechanics*, Heinrich Hertz argues that, instead of trying to answer the question "what is force?," as physicists and philosophers had unsuccessfully been doing, Newtonian physics should be reformulated without using "force" as a basic concept. Decades after the publication of Hertz's book, Ludwig Wittgenstein would consider this proposal a perfect model for how to solve philosophical problems, to the point of adopting it as the basis for his way of doing philosophy. Considering this scenario, this article discusses not only Wittgenstein's method of doing philosophy but also why he failed in his attempt to solve philosophical problems – just as Hertz had failed in his project to reformulate Newtonian physics without using the concept of "force." To illustrate Wittgenstein's failure, his disputes with mathematicians Kurt Gödel and Alan Turing over the foundations of mathematics are examined.

Keywords: Ludwig Wittgenstein; method by examples; complete clarity; Heinrich Hertz; Kurt Gödel; Alan Turing.

1 Introduction

For decades, scholars of Ludwig Wittgenstein's work have been analyzing the influence exerted by the ideas of the German physicist Heinrich Hertz in the formulation of both his first and second philosophies (e.g. Barker, 1980; Janik, 1994; Simões, 2012, 2013). However, as is customary when it comes to the exegesis of Wittgenstein's texts, it is difficult to find any consensus among Wittgensteinians about the nature and scope of such influence. Thus, for example, on one side, there are researchers like Joachim Schulte (1992) who tend to downplay the relevance of Hertz for understanding the *Tractatus logico-philosophicus*, while on the other hand, there are scholars like James Griffin (1964) who argue that the pictorial theory of meaning, the

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cornerstone of the *Tractatus*, has its roots precisely in Hertz. More recently, another particularly interesting controversy involving Hertz's role in the development of Wittgenstein's ideas emerged with the publication in 2008 of the article "Hertz, Wittgenstein and philosophical method" by John Preston. In it, Preston investigated the claim made by some Wittgensteinians that Wittgenstein's methodological conception in his later philosophy is indebted to Hertz. According to Preston (2008: 48), we currently tend to read Hertz in light of Wittgenstein, especially his concern in clarifying the concept of force, and we end up distorting his thought. According to Preston (2008: 49), Hertz clarifies the concept of force in a special sense, distinct from Wittgenstein's mature philosophical attitudes. Nevertheless, Preston (2008: 50) pondered that Wittgenstein's conception of the aim of philosophy was influenced by Hertz's conception, and that both authors believe that certain important conceptual problems are issues of lack of clarity. Taking this line of reasoning to its conclusion, Preston (2008: 50) categorically stated that the aim, both for Hertz and Wittgenstein, is complete conceptual clarity – and therefore the complete disappearance of philosophical torments

To support this claim, Preston cited the famous passage from the *Big Typescript* in which Wittgenstein revealed: "As I do philosophy, its entire task is to shape expression in such a way that certain worries disappear. ((Hertz.))" (Wittgenstein 2005b: 310).[2] Referring to this note by Wittgenstein, his biographer Ray Monk (1990: 26) commented that the mention of Hertz is due to the fact that he proposed in *The Principles of Mechanics* that, instead of directly answering the question "what is force?," as physicists and philosophers had been trying to do, it would be better to reformulate Newtonian physics without using "force" as a basic concept. 'When these painful contractions are removed,' wrote Hertz (1984 [1894]: 9 *apud* Monk 1990: 26), 'the question as to the nature of force will not have been answered; but our minds, no longer vexed, will cease to ask illegitimate questions.' According to Monk, Wittgenstein believed Hertz's solution was a perfect model for dissipating philosophical confusion, and it underlies his way of doing philosophy. In fact, as Monk pointed out, Wittgenstein had this passage from Hertz memorized and often quoted it to describe his own conception of philosophical problems and the correct way to resolve them.

[2] 'In my way of doing philosophy, its whole aim is to give an expression such a form that certain disquietudes disappear (Hertz)' (Monk 1990: 446).

Wittgenstein's aim, Monk concluded, was always to resolve such contradictions and replace confusion with clarity.

Despite sharing with Monk the interpretation that Hertz and Wittgenstein seek conceptual clarity, Preston (2008: 65) believes that claims that Wittgenstein's later conception of the philosophical method was strongly influenced by Hertz's way of thinking are unjustified. To support this conclusion, Preston meticulously analyzed Hertz's work in *The Principles of Mechanics* and contrasts it with Wittgenstein's *Philosophical Investigations*, revealing their divergences. This, of course, is an interesting discussion that no one interested in Hertz's influence on Wittgenstein should overlook. In this article, however, this specific question will be set aside in favor of examining an even more relevant point for the evaluation of the second Wittgensteinian philosophy: the fact that Wittgenstein was unable to replace confusion with clarity in his way of doing philosophy. In other words, the central objective of this work is to show, based on ideas defended by authors with whom Wittgenstein engages in his work and on ideas defended by Wittgenstein himself, how and why he did not achieve, nor could he achieve, the ultimate aim of his way of doing philosophy – just as Hertz did not achieve, nor could he achieve, complete conceptual clarity in his system, in which he notably continued to employ the concept of force and 'presupposes other, invisible things behind the things that we see' (Jammer 1957: 227).

To facilitate the exposition, this text has been divided into three sections, in addition to this introduction and the conclusion. In the second section, the method by examples proposed by Wittgenstein is examined. With this method, Wittgenstein aimed to achieve complete clarity and thus solve philosophical problems once and for all. According to Wittgenstein, instead of seeking the defining essence of concepts, as Socrates demanded from his interlocutors, it would be the philosophers' task to provide examples of the concepts to answer traditional philosophical questions, such as "What is knowledge?," "What is friendship?," "What is justice?". However, in developing this method, as will be detailed further on, Wittgenstein disregarded that different people may provide different examples of a concept, making it impossible to objectively determine which examples are correct and which are incorrect. Therefore, providing examples of concepts would not alleviate the difficulties, as Wittgenstein aimed. Next, in the third section, we move to the discussion of yet another obstacle that prevented Wittgenstein from achieving complete clarity: the fact, highlighted by numerous

theorists and by Wittgenstein himself, that our concepts have no fixed boundaries and language is irreparably vague. As a result, different people use and understand words in different ways, which often leads to errors, misunderstandings, and confusion – problems that, as will be seen, Wittgenstein suffered from until the end of his life, despite his philosophical method. Subsequently, in the fourth section, the disputes between Wittgenstein and mathematicians Kurt Gödel and Alan Turing regarding the foundations of mathematics are made explicit. The purpose of this account is to make it clear that the method by examples did not lead Wittgenstein to complete clarity nor did it truly guarantee him 'a real resting place,' as he claimed to have found in the early 1930s (Monk 1990: 297).

2 A method of doing philosophy

After recognizing, in the late 1920s, that he had not truly solved the philosophical problems once and for all, as he had declared in the preface of the *Tractatus Logico-Philosophicus*, Wittgenstein decided to return to Cambridge, England, to effectively become the 'Terminus ad quem of great occidental philosophy' (Wittgenstein 2003: 73). With this intention, and in outright opposition to the philosophical conception of the *Tractatus*, Wittgenstein began to argue in the 1930s that, instead of teaching doctrines and developing theories, as he had done in his 1921 book, the philosopher's role was to demonstrate a technique, a method for achieving clarity (Monk 1990: 297). Convinced that in this way he could dissolve philosophical problems, Wittgenstein would declare already in October 1930, in the inaugural lecture of his philosophy course at the University of Cambridge, that he had arrived at a clear conception of the correct method in philosophy: 'The nimbus of philosophy has been lost. For we now have a method of doing philosophy, and can speak of skilful philosophers. Compare the difference between alchemy and chemistry: chemistry has a method and we can speak of skilful chemists' (Monk 1990: 298). In § 133 of the *Philosophical Investigations*, Wittgenstein presented in a simple and direct way his method of doing philosophy, that is, his method by examples:

> [...] the clarity that we are aiming at is indeed *complete* clarity. But this simply means that the philosophical problems should *completely* disappear.
>
> The real discovery is the one that enables me to break off philosophizing when I want to. – The one that gives philosophy peace, so that it is no longer tormented by questions which bring *itself* in question. – Instead, a method is now demonstrated by examples, and the series of examples can be broken off. – Problems are solved (difficulties eliminated), not a *single* problem.

Wittgenstein was convinced that his method of doing philosophy was a turning point in the development of human thought comparable to Galileo's revolution in Science (Glock 1996: 292). In fact, Wittgenstein thought that his method would lead to *complete* clarity, with which he believed that philosophical problems would disappear *completely*. Today, however, almost 100 years after Wittgenstein's triumphant declaration in the classroom, it seems evident that he had not in fact obtained a clear conception of the correct method in philosophy. And this is not surprising if one takes into account that the method by examples could never be effective because different people give different examples of a concept, without an objective way to decide which examples are right and which are wrong.

For instance, when reflecting on questions of good and evil, Tolstoy (2009: VIII) observed that 'no human definitions can succeed in making what some regard as evil be accepted as such by others' and 'there is, and can be, no external definition of evil binding upon all.' The same difficulty arises in the method by examples of Wittgenstein, since there is, and can be, no external example of evil, as well as other concepts, binding upon all. This contrariety to the method by examples was pointed out in a 1938 lecture by Rush Rhees to Wittgenstein, who dismissed it as unimportant:

> [Rhees asked Wittgenstein some question about his 'theory' of deterioration.]

> Do you think I have a theory? Do you think I'm saying what deterioration is? What I do is describe different things called deterioration. I might approve deterioration. – 'All very well your fine musical culture; I'm very glad children don't learn harmony now.' [Rhees: Doesn't what you say imply a preference for using 'deterioration' in certain ways?] All right, if you like, but this by the way – no, it is no matter. My example of deterioration is an example of something I know, perhaps something I dislike – I don't know. 'Deterioration' applies to a tiny bit I may know. (Wittgenstein 1966: 10)

What Wittgenstein said implied a preference for using 'deterioration' in certain ways and of course it matters. Wittgenstein's example of deterioration is an example of something he knew, perhaps something he disliked – I don't know. 'Deterioration' applied to a tiny bit he may have known. But it is also possible that he didn't know. However, without ever seeing himself through the eyes of others and having no other standards than his own, Wittgenstein disregarded this fact both in elaborating his method by examples and in reflecting on following rules. Wittgenstein disregarded this fact when developing his method by examples, as well as when reflecting on following rules. 'Our use of language is like playing a game according to the rules,' Wittgenstein (2001: 32) said to his students in yet another class in the early 1930s. In a certain sense, this is indeed the case, as Fritz Mauthner had already asserted in the monumental *Beiträge zu einer Kritik der Sprache*, which Wittgenstein had known since his youth (Mauthner 1901–1903: I, 25 *apud* Janik and Toulmin 1973: 126). It is obvious, however, as David Pears (1970: 179) has pointed out, that the rules always allow divergent interpretations – in particular, it should be added, the rules of the use of language. Apparently unaware of this, Wittgenstein pondered in § 54 of the *Philosophical Investigations*:

> '[...] we say that it [the game] is played according to such-and-such rules because an observer can read these rules off from the way the game is played [...]. – But how does the observer distinguish in this

> case between players' mistakes and correct play? – There are characteristic signs of it in the players' behaviour.'

But how does the observer distinguish, in the use of the word 'deterioration,' between a mistake on the part of the speaker and a correct usage? Are there characteristic signs in the behavior of the speakers? Besides, who could distinguish, in the use of this word, who is right and who is wrong? And who could teach people the correct use of the word 'deterioration' while aiming at *complete* clarity? 'For doesn't the technique (the possibility) of training someone else in following it belong to the following of a rule?,' Wittgenstein (1978: VII, § 53) asked himself. 'To be sure, by means of examples. And the criterion of his understanding must be the agreement of their individual actions.' Therefore, anyone who used the word 'deterioration' without coinciding with Wittgenstein would not have understood the rule? Would anyone who used the word 'deterioration' without agreement to Wittgenstein make a mistake?

Indifferent to obstacles of this nature, Wittgenstein stated in § 219 of the *Philosophical Investigations*: 'When I follow the rule, I do not choose. I follow the rule *blindly*.' In fact, when I follow the rule of a game, I do not choose. I follow the rule *blindly*. But what rule to follow blindly in the use of the word 'deterioration'? And what rule to follow blindly in the use of other words? What rule should one follow blindly in the use of the word 'good,' for example? '"It is good because God commanded it" is the right expression for the lack of reason,' Wittgenstein (2003: 83) noted in his diary in the early 1930s. Atheists like Friedrich Nietzsche and Bertrand Russell would never follow the same rule in their use of the word 'good' – let alone blindly. Would they therefore make a mistake?

Without taking into account that there is, and can be, no external authority that gives examples of concepts that are binded upon all and that the rules of the use of language always allow divergent interpretations, Wittgenstein invites in § 66 of the *Philosophical Investigations*, resorting to the old tradition of pointing out the varied and overlapping characteristics of examples of a concept (what he calls 'family resemblance') [3]:

[3] For a discussion of this topic, see Silva (2025, appendix II).

> Consider, for example, the activities that we call "games". I mean board-games, card-games, ball-games, athletic games, and so on. What is common to them all? a Don't say: "They must have something in common, or they would not be called 'games'" – but look and see whether there is anything common to all. – For if you look at them, you won't see something that is common to all, but similarities, affinities, and a whole series of them at that. To repeat: don't think, but look! – Look, for example, at board-games, with their various affinities. Now pass to card-games; here you find many correspondences with the first group, but many common features drop out, and others appear. When we pass next to ball-games, much that is common is retained, but much is lost. – Are they all '*entertaining*'? Compare chess with noughts and crosses. Or is there always winning and losing, or competition between players? Think of patience. In ball-games, there is winning and losing; but when a child throws his ball at the wall and catches it again, this feature has disappeared. Look at the parts played by skill and luck, and at the difference between skill in chess and skill in tennis. Think now of singing and dancing games; here we have the element of entertainment, but how many other characteristic features have disappeared! And we can go through the many, many other groups of games in the same way, can see how similarities crop up and disappear.

Consider now the activities that we call "sciences." In his *Introduction to Philosophy*, Martin Heidegger investigates the varied and overlapping characteristics of examples of the concept of science, including the natural sciences and humanities. In his reflection, Heidegger concludes that mathematics, with universally valid results, is the example of science par excellence. However, following different rules from Heidegger's, Wittgenstein did not consider mathematics a science, but a series of techniques, with no truths to discover (cf., e.g., Monk 1990: 330; Wittgenstein 1974: 375). But is mathematics a science or not? What about humanities? To answer these

questions, it is necessary to answer the fundamental question: what is science? This question is untouched by the method by examples. Besides, this question, as Heidegger points out, is an old question, that is, an ever-new question. It is one of those questions that does not settle down when we already have a definition at hand. Moreover, it is one of those questions that does not settle down when we only have examples at hand. Unbeknownst to this, Wittgenstein asks himself in § 69 of the *Philosophical Investigations*:

> How would we explain to someone what a game is? I think that we'd describe *games* to him, and we might add to the description: "*This and similar things* are called 'games'." And do we know any more ourselves? Is it just that we can't tell others exactly what a game is? – But this is not ignorance. We don't know the boundaries because none have been drawn.

And how would we explain to someone what science is? I think that, following Wittgenstein's method, we'd describe examples of sciences to him, and we might add to the description: "This and similar things are called 'sciences.'" But should we include mathematics or not? What about humanities? Without facing this kind of problem, Wittgenstein takes up in § 71 of the *Philosophical Investigations* the question of how to explain what a game is and states:

> And this is just how one might explain what a game is. One gives examples and intends them to be taken in a particular way. – I do not mean by this expression, however, that he is supposed to see in those examples that common feature which I – for some reason – was unable to formulate, but that he is now to employ those examples in a particular way. Here giving examples is not an *indirect* way of explaining – in default of a better one. For any general explanation may be misunderstood too. *This*, after all, is how we play the game. (I mean the language-game with the word "game".)

According to Wittgenstein, this is just how one might explain what science is. One gives examples and intends them to be taken in a particular way and that he is now to employ those examples in a particular way. Wittgenstein, however, overlooked the fact that different people give different examples and employ them in a particular way, without there being a trainer to distinguish between a wrong example and a right example. *This*, after all, is how we play the game. (I mean the language-game with the word "science".)

Ignoring these difficulties to his method by examples, Wittgenstein would, in the 1930s, extend it to aesthetics. Thus, he went on to argue that, instead of teaching doctrines and developing theories about beauty, it would be up to the philosopher to explain the beauty of a work of art by explaining it: 'You might think Aesthetics is a science telling us what's beautiful – almost too ridiculous for words. I suppose it ought to include also what sort of coffee tastes well' (Monk 1990: 405). For Wittgenstein, instead of theories, 'you have to give the explanation that is accepted. This is the whole point of the explanation' (Monk 1990: 407). But who could explain the beauty of a work of art by explaining it? Who could give an explanation that would be accepted? Julian Bell, who was a student at Cambridge in the 1930s, would not have the slightest doubt about who Wittgenstein had in mind, as he ironically wrote in this sarcastic poem:

> For he [Wittgenstein] talks nonsense, numerous statements makes,/Forever his own vow of silence breaks:/ Ethics, aesthetics, talks of day and night,/ And calls things good or bad, and wrong or right./… who, on any issue, ever saw/ Ludwig refrain from laying down the law?/ In every company he shouts us down,/ And stops our sentence stuttering his own;/ Unceasing argues, harsh, irate and loud,/ Sure that he's right, and of his rightness proud,/ Such faults are common, shared by all in part,/ But Wittgenstein pontificates on Art. (Monk 1990: 257)[4]

[4] For a reinterpretation of Wittgenstein's egocentrism in light of the posthumous diagnosis of autism, see Silva (2022, 2025).

Sure that he would be the right person to give an explanation that would be accepted, Wittgenstein disregarded in aesthetics the fact that to make explicit the beauty of a work of art implies a preference and of course it matters. Musically, for example, Wittgenstein's preference was restricted to six composers: Haydn, Mozart, Beethoven, Schubert, Brahms, and Labor (Monk 1990: 8). Obviously, to believe that some explanation of the music of composers that Wittgenstein detested, such as Mahler and Schönberg (cf., e.g., Monk 1990: 78; Wittgenstein 1984: 67; 2003: 93), could be accepted by him is almost too ridiculous for words. It is also almost too ridiculous for words to believe that an explanation of Shakespeare's texts could be accepted by Wittgenstein, who confessed: 'I am deeply suspicious of most of Shakespeare's admirers' (Wittgenstein 1984: 84). In fact, Wittgenstein – whose interest in literature had remained rudimentary in the opinion of the literary critic F. R. Leavis (1984: 66) – was deeply suspicious of the admirers of many of the most prestigious writers of his time, such as Rainer Maria Rilke and T. S. Eliot (Bouwsma 1986: 71–72). More than that: Wittgenstein had a deep suspicion of cultures other than his own, the Germanic – in particular, the English culture: 'An English architect or musician (perhaps any artist at all), one can be almost certain that he is a humbug!,' Wittgenstein (2003: 97) pontificated. Worse, even though he made certain exceptions, such as the Russian writers Tolstoy and Dostoevsky, whom he appreciated so much, Wittgenstein basically despised what was not his culture:

> Through education (the acquisition of culture) the one simply comes into his own. He thereby gets to know as it were his paternal heritage. While the other acquires through this forms that are alien to his nature. And there it would have been better if he had remained uncultured no matter how awful & unpolished. (Wittgenstein 2003: 95)

Wittgenstein's contempt for an education, for a culture other than his own, underpins his method by examples, designed to explain concepts and make judgments always from his point of view, from his culture, never from the point of view of the

other, from the culture of the other. ‘It is like saying: “I classify works of Art in this way: at some I look up and at some I look down.” This way of classifying might be interesting’ (Wittgenstein 1966: 12). Yes, this way of classifying might be interesting for someone whose ‘opinions on most matters were absolute, allowing of no argument,’ as Fania Pascal (1984: 32) recalled, but it does not eliminate the difficulties.

3 A sure means of remaining stuck in confusion

In accordance with his method by examples, based on the idea that it was up to the philosopher to demonstrate a technique to achieve clarity rather than to teach doctrines and develop theories, the second Wittgenstein intended to solve philosophical problems through the ‘quiet weighing of linguistic facts’ (Wittgenstein 1970: § 447), since, under the influence of Hertz, he believed not only that ‘an inappropriate expression is a sure means of remaining stuck in confusion’ (Wittgenstein 2009 [1953]: § 339.), but that ‘philosophical problems arise when language *goes on holiday*’ (Wittgenstein 2009 [1953]: § 38). With this perspective, Wittgenstein considered philosophy ‘simply a course in thinking – clearing away confusions’ and ‘once these are cleared away one is prepared for other work’ (Bouwsma 1986: 28). With his optimism, however, Wittgenstein seems not to have realized that confusions can never be completely dispelled because, as Russell rightly said in the introduction to the *Tractatus logico-philosophicus,* in practice language is always more or less vague, so that what is asserted can never be completely precise. Wittgenstein himself pointed out the vagueness of language in several texts of his later philosophy. In the *Philosophical Grammar,* for example, Wittgenstein stated:

> The use of the words “proposition’’, “language’’, etc. has the haziness of the normal use of concept-words in our language. To think this make them unusable, or ill-adapted to their purposes, would be like wanting to say “the warmth this stove gives is no use, because you can’t feel where it begins and where it ends”. (Wittgenstein 1974: 120)

In the *Blue Book*, Wittgenstein not only stated that ‘many words [...] don’t have a strict meaning,’ as he noted: ‘But this is not a defect. To think it is would be like saying that the light of my reading lamp is no real light at all because it has no sharp boundary’ (Wittgenstein 1964: 27). In § 68 of the *Philosophical Investigations*, in turn, Wittgenstein pointed out the imprecision of concept-words such as “number” and “game:”

> “All right: the concept of number is defined for you as the logical sum of these individual interrelated concepts: cardinal numbers, rational numbers, real numbers, etc.; and in the same way the concept of a game as the logical sum of a corresponding set of sub-concepts.”— It need not be so. For I *can* give the concept ‘number’ rigid limits in this way, that is, use the word “number” for a rigidly limited concept, but I can also use it so that the extension of the concept is *not* closed by a frontier. And this is how we do use the word “game”. For how is the concept of a game bounded? What still counts as a game and what no longer does? Can you give the boundary? No. You can *draw* one; for none has so far been drawn. (But that never troubled you before when you used the word “game”.)

Aware that ‘we do not know the boundaries of what we call games (Wittgenstein 2009 [1953]: § 69), Wittgenstein asked in § 75 of the *Philosophical Investigations*:

> What does it mean to know what a game is? What does it mean, to know it and not be able to say it? Is this knowledge somehow equivalent to an unformulated definition? So that if it were formulated I should be able to recognize it as the expression of my knowledge? Isn't my knowledge, my concept of a game, completely expressed in the explanations that I could give? That is, in my describing examples

> of various kinds of game; shewing how all sorts of other games can be constructed on the analogy of these; saying that I should scarcely include this or this among games; and so on.

Other people, of course, could provide very different explanations than Wittgenstein's and describe examples of kinds of games that Wittgenstein did not know about, or that he disliked – I don't know. The fact to be emphasized here is that different people could act differently, since concepts do not have fixed limits. In other words: 'Concepts with fixed limits would demand a uniformity of behaviour. But where I am certain, someone else is uncertain. And that is a fact of nature' (Wittgenstein 1970: § 374). And it is precisely due to this "fact of nature" that certain disquietudes will never disappear – even if words are printed upside down to emphasize their imprecision, as Wittgenstein suggested to Basil Reeve when they wrote a report on "shock" at Guy's Hospital in London (Monk 1990: 447).

According to Monk (1990: 445ss), while working at this hospital during World War II, Wittgenstein became interested in Dr. R. T. Grant's research upon learning that he had adopted a solution similar to Hertz's for dissipating the confusion surrounding the concept of 'wound shock.' Throughout the conflict, Dr. Grant treated patients with 'wound shock' due to German bombings, and in a memorandum on the subject, he expressed objections to the use of this concept, proposing to avoid the diagnosis of 'shock' and to replace it with an accurate and comprehensive record of the patient's condition and progress alongside their treatment. In this way, just as Hertz proposed to reformulate Newtonian physics without using 'force' as a basic concept, Dr. Grant proposed a medicine without the use of 'shock' as a basic concept. Having agreed with Dr. Grant's approach, Wittgenstein suggested to Reeve that they print 'shock' upside down in the report they had drafted to emphasize its unusability. Interestingly, however, in the *Philosophical Grammar*, written 10 years earlier, the imprecision of the words 'proposition' and 'language' did not lead Wittgenstein to consider eliminating them or printing them upside down. Even more interestingly, Wittgenstein noted well in the *Blue Book*:

> Doctors will use names of diseases without ever deciding which phenomena are to be taken as criteria and which as symptoms; and this need not be a deplorable lack of clarity. For remember that in general we don't use language according to strict rules [...]. (Wittgenstein 1964: 25)

Thus, 'we are always concluding from symptoms to illnesses and we know that the most different symptoms can be symptoms of the same thing' (Wittgenstein 1974: 360). And the most different symptoms of the patients treated by Dr. Grant could be symptoms of the same thing: 'wound shock.' After all, doctors will use names of diseases without ever deciding which phenomena are to be taken as criteria and which as symptoms; and this need not be a deplorable lack of clarity – just as the diagnosis that Wittgenstein had suffered a 'nervous shock' and a few light injuries after an explosion in the workshop where he worked during World War I (Monk 1990: 132) did not constitute a deplorable lack of clarity. Therefore, merely avoiding the diagnosis of 'shock' and replacing it with an accurate and complete record of the patient's condition and progress alongside their treatment would not solve the problem – just as simply omitting the word did not solve the problem, as was done in the title of the final report on 'shock,' 'Observations on the General Effects of Injury in Man,' which may have been written by Wittgenstein himself (Monk 1990: 452). But, regardless of who wrote the report, the fact is that in his philosophy, Wittgenstein adopted a stance very different from that of omitting a word or suggesting printing it upside down to emphasize its unusability. This does not mean, however, that he has managed to achieve complete clarity, thereby clearing away confusions, since language is inexorably vague and words do not have meanings with precise limits. To make matters worse, given that 'the *speaking* of language is part of an activity, or of a form of life' (Wittgenstein 2009 [1953]: § 23), linguistic and cultural differences among people cause the same language games to have different meanings for them.

Wittgenstein himself, despite having lived for many years in England, far from his native Vienna, could not establish a relationship of full trust with the people of Cambridge, for, given the linguistic and cultural differences, he could never be sure he was being understood (Monk 1990: 267). Thus, whenever a misunderstanding arose, he tended to attribute it to these differences (Monk 1990: 267), as happened once with

Frank Ramsey: ‘What a statement seems to imply to me it doesn’t to you,’ Wittgenstein wrote to him. ‘If you should ever live amongst foreign people for any length of time & be dependent upon them you will understand my difficulty.’

In addition to the difficulties and misunderstandings that arise due to linguistic and cultural differences among people, it is important to emphasize the difficulties and misunderstandings that arise due to historical differences. These, however, were dismissed by Wittgenstein as unimportant for his philosophical investigations in a class in the early 1930s (Wittgenstein 2001: 31). Nevertheless, shortly thereafter, perhaps having become aware of the fact that ‘a language-game does change with time’ (Wittgenstein 1969: § 256), Wittgenstein observed: ‘The concept of a “festivity”. We connect it with merrymaking; in another age it may have been connected with fear and dread. What we call “wit” and “humour” doubtless did not exist in other ages. And both are constantly changing’ (Wittgenstein 1984: 170). Indeed, as highlighted by numerous authors over the centuries, including Friedrich Nietzsche (cf., e.g., 2002, 2003, 2007), words can gain different meanings over time and thus express another thought. And this is a sure means of remaining stuck in confusion, as Wittgenstein himself acknowledged:

> If we found a sentence like “The Assyrians knew various games” in a history book without further qualifications, it would strike us as very curious; for we wouldn’t be certain that we could give an example that even roughly corresponded to the meaning of the word ‘game’ in this case. (Wittgenstein 1974: 119)

Finally, in addition to the difficulties and misunderstandings that arise due to linguistic, cultural, and historical differences, the difficulties and misunderstandings that arise from individual differences must also be mentioned, of which Wittgenstein himself provides abundant testimonies. In the early 1930s, for example, Wittgenstein noted in his diary: ‘It is strange when two different worlds can live in two rooms one beneath the other. This happens when I live below the two students who make noise above me. These are really two worlds & no communication is possible’ (Wittgenstein 2003: 125). By then a prestigious philosopher in his 40s and a war veteran of the

shattered Austro-Hungarian Empire, Wittgenstein was not exaggerating when he said that his world was not the world of his student neighbors. However, Wittgenstein's world was also not the world of his comrades in uniform in the First World War, whom he called 'a bunch of delinquents' **(**Monk 1990: 114) that had 'no enthusiasm for anything, unbelievably crude, stupid and malicious' **(**Monk 1990: 114), individuals 'so much mean as *appallingly* limited' **(**Monk 1990: 139), so that it was 'almost impossible to work with them,' because they forever misunderstood **(**Monk 1990: 139). As a teenager at school in Linz, where he had only one close friend and was harassed by most of the students, Wittgenstein also did not get along with his classmates, whom he described as '*Mist*' ('muck') (Monk 1990: 15–16).[5]

In milder circumstances, Wittgenstein would also find worlds completely different from his own, in which no understanding would be possible. In the mid-1940s, for example, Wittgenstein lived for a time in the home of a Methodist minister, the Reverend Wynford Morgan. When asked if he believed in God, Wittgenstein was categorical: 'Yes I do, but the difference between what you believe and what I believe may be infinite' (Monk 1990: 463). May be infinite as well the difference between what Reverend Morgan believed, what Wittgenstein believed, and what Russell believed: 'What you call God is very much what I call infinity,' Russell wrote to Ottoline Morrell in 1911 (Monk 1990: 38).

In view of differences such as these between Wittgenstein, Reverend Morgan, and Russell regarding what they meant by God, it is understandable that Wittgenstein wondered: 'How do I know that two people mean the same thing when each says he believes in God?' (Wittgenstein 1984: 85). Wittgenstein offers an answer: 'Practice gives the words their sense' (Wittgenstein 1984: 85). Indeed, practice gives the words their sense. However, as Frege notes in the paper "On Sense and Reference," 'it is to be noted that, on account of the uncertain connexion of ideas with words, a difference may hold for one person, which another does not find' (Frege 1960: 61). And this, more than any other, is a sure means of remaining stuck in confusion.

However, despite the 'haziness of the normal use of concept-words in our language,' and the difficulties and misunderstandings that arise due to linguistic,

[5] For a reinterpretation of Wittgenstein's social difficulties in light of the diagnosis of autism, see Silva (2022, 2025).

cultural, historical, and individual differences among people, Wittgenstein's aim was always to resolve contradictions and replace confusion not only with clarity but with complete clarity, as he stated in § 133 of the *Philosophical Investigations*. In fact, even before writing the *Philosophical Investigations*, Wittgenstein had already revealed to members of the Vienna Circle his aspiration for complete, absolute clarity, with which he believed no dispute between philosophers could arise:

> If there were theses in philosophy, they would have to be such that they do not give rise to disputes. For they would have to be put in such a way that everyone would say, Oh yes, that is of course obvious. As long as there is a possibility of having different opinions and disputing about a question, this indicates that things have not yet been expressed clearly enough. Once a perfectly clear formulation – ultimate clarity – has been reached, there can be no second thoughts or reluctance any more, for these always arise from the feeling that something has now been asserted, and I do not yet know whether I should admit it or not. If, however, you make the grammar clear to yourself, if you proceed by very short steps in such a way that every single step becomes perfectly obvious and natural, no dispute whatsoever can arise. Controversy always arises through leaving out or failing to state clearly certain steps, so that the impression is given that a claim has been made that could be disputed. (Monk 1990: 320–321)

In § 128 of the *Philosophical Investigations*, Wittgenstein adds: 'If someone were to advance *theses* in philosophy, it would never be possible to debate them, because everyone would agree to them.' However, as Glock (1996: 297) points out, if Wittgenstein's observations conform to his 'non-opinion' methodology, then they cannot amount to a genuine contribution to philosophical debate. And in the event that they do not comply with such a methodology, then his practice belies his stated methodological views – 'he would be propounding the non-obvious thesis that there are no non-obvious philosophical theses.' Without perceiving this embarrassment, Wittgenstein would hold the conviction that there are no theses in philosophy, that

differing opinions or disputes on a question indicate that things have not yet been expressed clearly enough, and that once a perfectly clear formulation – ultimate clarity – has been reached, there can be no second thoughts or reluctance any more, for these always arise from the feeling that something has now been asserted, and I do not yet know whether I should admit it or not.

Curiously, when disputes arose with Wittgenstein himself, he often disregarded his interlocutor. In the meetings of the Vienna Circle, for example, according to Rudolf Carnap, Wittgenstein 'tolerated no critical examination by others, once the insight had been gained by an act of inspiration' (Monk 1990: 244). Carnap himself verified this intolerance, since, for having asked Wittgenstein several times to clarify his idea about the possibility of talking about linguistic expressions, he was banished forever more from his presence. 'If he [Carnap] doesn't smell it, I can't help him. He just has got no nose!,' Wittgenstein told Herbert Feigl (Goldstein 2005: 106). When Feigl's admiration for Carnap became clear, he too was banished from Wittgenstein's presence (Goldstein 2005: 106).

A few years after having banished Carnap and Feigl from his presence, Wittgenstein would give another demonstration of being 'a man who is quite incapable of carrying on a discussion'[6] – as the logician W. E. Johnson characterized him (Drury 1984: 103) – by presenting the *Tractatus Logico-Philosophicus* as a thesis at Cambridge. On that occasion, Wittgenstein was dismissive of his examiners, Russell and Moore, to whom the truth of the thoughts communicated in the book did not seem 'unassailable and definitive': 'Don't worry, I know you'll never understand it,' Wittgenstein told them (Monk 1990: 271). Russell never really "understood" the mixture of logic and mysticism in the *Tractatus*. In delivering the lecture "Current Tendencies" in 1912, in part to justify the scientific attitude against the mystical attitude, Russell even stated that the logic used in defence of mysticism seemed to him faulty as logic. Russell also never "understood" the religiosity of Wittgenstein, who became a Christian during World War I. Moreover, Russell did not "understand" Wittgenstein's sympathy for communism or his antagonism to universal suffrage, as Russell despised the Soviet regime, and championed suffrage to the point of running for the British Parliament for the Women's Suffrage Party in 1907 (Monk 1990: 72–73).

[6] For a reinterpretation of Wittgenstein's egocentric behavior in light of the autism diagnosis, see Silva (2022, 2025).

But much more importantly: Russell never "understood" the second philosophy of Wittgenstein either, whose positive doctrines seemed trivial to him and negative doctrines unfounded (Russell 1959: 216).

In view of all these controversies between Russell and Wittgenstein, which evidently did not arise when language *went on holiday*, it would be naïve to believe that disputes between them would cease to arise if they made the grammar clear to themselves, if they proceeded by very short steps in such a way that every single step became perfectly obvious and natural. After all, the controversies between Russell and Wittgenstein came from the fact that their points of view were different, which led to disputes in the first months of living together as a professor and student at Cambridge and later to the end of their friendship: 'Our quarrels don't arise just from external reasons such as nervousness or over-tiredness but are – at any rate on my side – very deep-rooted,' Wittgenstein wrote to Russell in 1914. 'You may be right in saying that *we ourselves* are not *so very* different, but *our ideals* could not be more so. And that's why we haven't been able and we shan't *ever* be able to talk about anything involving our value-judgements without either becoming hypocritical or falling out' (Monk 1990: 99–100). And that's why it would be definitely naïve to believe that the disputes between Russell and Wittgenstein on the most diverse questions would cease to arise if they made the grammar clear to themselves, if they proceeded by very short steps in such a way that every single step became perfectly obvious and natural; if, in sum, they had achieved a perfectly clear formulation – ultimate clarity.

4 Wittgenstein's disputes over the foundations of mathematics

Equally naive would be to believe that the disputes between Wittgenstein and the mathematicians over the foundations of mathematics would cease if they made the grammar clear to themselves, if they achieved a perfectly clear formulation – ultimate clarity. In particular, the disputes of Wittgenstein with the mathematicians Kurt Gödel and Alan Turing, whose first major episode took place at the famous conference on the "Epistemology of Exact Sciences" held in 1930 in the city of Königsberg. At this event, leaders from the main schools of the philosophy of mathematics defended their

respective viewpoints. The Dutch mathematician Arend Heyting represented the intuitionists, the Hungarian mathematician John von Neumann, the formalists, Carnap, the logicists, and Waismann spoke for the reclusive Wittgenstein, summarizing his new ideas about the nature of mathematics. A brief statement, however, by the young logician and mathematician Kurt Gödel presenting his famous incompleteness theorem would eventually surpass the other lectures in importance. Later, Gödel would publish a second theorem, as a corollary of the first. With his two incompleteness theorems, Gödel proved that in any consistent formal system (i.e., without the rules of the system generating contradictions) there will always be a sentence whose truth cannot be proved in that system, and that the consistency of a formal system of arithmetic cannot be proved from within the system itself. In doing so, Gödel demolished David Hilbert's project of providing a finitary formal proof of the consistency of the axioms of arithmetic from within the arithmetic system itself. Moreover, he proved that mathematics cannot be reduced to logic, as logicists such as Frege and Russell believed.[7] 'Whether Wittgenstein accepted this interpretation of Gödel's result is a moot point,' stated Monk (1990: 297). 'His comments on Gödel's proof (see *Remarks on the Foundations of Mathematics,* Appendix to Part I) appear at first sight, to one trained in mathematical logic, quite amazingly primitive.' At second, third, and fourth sight, it was confirmed that Wittgenstein's comments on Gödel's proof were quite amazingly primitive – and even embarrassing, in the estimation of several scholars, as J. W. Dawson Jr. (1988: 88–89) observed. Be that as it may, it is not a moot point whether or not Wittgenstein accepted this interpretation of Gödel's results (see *Remarks on the Foundations of Mathematics,* VII, § 19).

In this section of the book, Wittgenstein states: 'My task is, not to talk about (e.g.) Gödel's proof, but to by-pass it.' However, as Goldstein (2005: 190) points out, despite this statement, which tends to irritate mathematicians, Wittgenstein always takes up Gödel's incompleteness theorem in his *Remarks on the Foundations of Mathematics,* trying to show that it cannot mean what it purports to mean. Also to the irritation of mathematicians, Wittgenstein tries to disqualify Gödel's proof, saying that it is based on 'bits of legerdemain' (Wittgenstein 1978: VII, § 19), since for him 'mathematics cannot be incomplete; any more than a *sense* can be incomplete' (Wittgenstein 1975: 188). 'My

[7] For a presentation and analysis of the so-called Hilbert program, Frege and Russell's logicism, and Gödel's theorems, see, for example, Goldstein (2005), Hintikka (2000), Nagel and Newman (2001), Shanker (1988), and Smith (2007).

aim is to alter the *attitude* to contradiction and to consistency proofs,' Wittgenstein wrote (1978: III, § 82). In conversation with Waismann and Schlick in December 1930, Wittgenstein detailed his position on the subject, without losing sight of the analogy between mathematics and a game:

> I've been reading a work by Hilbert on consistency. It strikes me that this whole question has been put wrongly. I should like to ask: Can mathematics be inconsistent at all? I should like to ask these people: Look, what are you really up to? Do you really believe there are contradictions hidden in mathematics?
>
> [...] if inconsistencies were to arise between the rules of the game of mathematics, it would be the easiest thing in the world to remedy. All we have to do is to make a new stipulation to cover the case in which the rules conflict, and the matter's resolved. (Wittgenstein 1975: 318–319)

So, for Wittgenstein, 'what Hilbert does is mathematics and not metamathematics. It's another calculus, just like any other' (Wittgenstein 1975: 329). That is, as long as mathematical symbols can be used correctly, there is no need for a "theory" of mathematics, as Monk (1990: 306) summarizes Wittgenstein's conception of mathematics. Thus, Monk adds, a definitive and fundamental justification of mathematical rules is neither possible nor desirable, which means that the whole debate about the 'foundations' of mathematics rests on a misconception. From this perspective, as Goldstein points out,

> It is really not so surprising that Wittgenstein would dismiss Gödel's result with a belittling description like "*logische Kunststücke*," logical conjuring tricks, patently devoid of the large metamathematical import that Gödel and other mathematicians presumed his theorems had. Gödel's proof, the very possibility of a proof of its kind, is forbidden

> on the grounds of Wittgensteinian tenets [...]. He was, in short, adamant in denying the possibility of a proof such as Gödel's. (Goldstein 2005: 189)

In the 1970s, the mathematician Karl Menger showed Gödel excerpts from the *Remarks on the Foundations of Mathematics* regarding the incompleteness theorems. Gödel later wrote to his former colleague in the Vienna Circle:

> As far as my theorems about undecidable propositions are concerned, it is indeed clear from the passage that you cite that Wittgenstein did *not* understand it (or that he pretended not to understand it). He interprets it as a kind of logical paradox, while in fact it is just the opposite, namely a mathematical theorem within an absolutely uncontroversial part of mathematics (finitary number theory or combinatorics). Incidentally, the whole passage you cite seems nonsense to me. See e.g. the "superstitious fear of mathematicians" of contradiction. (Goldstein 2005: 118)

Gödel further remarked to the mathematician Abraham Robinson that Wittgenstein's comment on his theorems was a 'completely trivial and uninteresting misinterpretation' of his results (Goldstein 2005: 118).

Em todo caso, a fim de compreender a atitude de Wittgenstein em relação à prova de Gödel, é necessário ter em vista que seu objetivo na verdade era descartar toda a lógica matemática em seu "ataque quixotesco" à matemática pura, como o denominou Monk (1995, p.297). Exatamente com esse intuito, Wittgenstein depreciou vários aspectos da discussão sobre os fundamentos da matemática em seu curso sobre o tema ministrado na Universidade de Cambridge em 1939. Inclusive o paradoxo de Russell:

> Take Russell's contradiction.[8] There are concepts which we call predicates – 'man', 'chair', and 'wolf' are predicates, but 'Jack' and 'John' are not. Some predicates apply to themselves and others don't. For instance 'chair' is not a chair, 'wolf' is not a wolf, but 'predicate' is a predicate. You might say this is bosh. And in a sense it is. (Monk 1990: 416–417)

To Monk (1990: 417), Wittgenstein's 'lack of sophistication' examining Russell's contradiction – 'from a mathematical point of view, quite extraordinarily primitive' (Monk 1990: 416) – had a propagandist purpose. 'Wittgenstein's use of casual, everyday, language in discussion of problems in mathematical logic, and his simple dismissal as "bosh" of the terms in which those problems have been raised, serves as an antidote to the seriousness and earnestness with which they have been discussed by those who have fallen for their "charm" (including, for example, himself, in 1911)' (Monk 1990: 417). However, mathematicians – as well as most analytic philosophers, which, as Oskari Kuusela and Marie McGinn (2014: 7, n.6) note, 'still seem too scandalized by Wittgenstein's philosophy of mathematics to consider it very seriously'[9] – have never accepted this "antidote" of Wittgenstein's, starting with one of the attendees in those classes, the mathematician Alan Turing. That same year Turing gave a course at Cambridge entitled "Foundations of Mathematics," in which students were introduced to the technique of proving mathematical theorems from a rigorously axiomatic system of logic (Monk 1990: 417) – that is, the source of the mathematical fascination that Wittgenstein tried to dismiss as "bosh."

According to Monk (1990: 418), Wittgenstein probably believed that if he could convince Turing to see mathematics through his eyes, he could convince anyone. However, Wittgenstein failed to convince Turing, who, asked on one occasion if he understood what Wittgenstein was saying, replied: 'I understand but I don't agree that it is simply a question of giving new meanings to words' (Monk 1990: 418). Wittgenstein – 'somewhat bizarrely,' in Monk's opinion (1990: 418) – commented to this: 'Turing

[8] This is the so-called "Russell's paradox," which involves the set of all sets that are not members of themselves. For a detailed presentation of the paradox and discussion of its implications, see, for example, Goldstein (2005: 91 ff), Monk (1990: 30–32), and Smith (2007: 10.8, 4).

[9] For an analysis of other aspects of Wittgensteinian mathematical thought that justify this fact, see Silva (2018).

doesn't object to anything I say. He agrees with every word. He objects to the idea he thinks underlies it. He thinks we're undermining mathematics, introducing Bolshevism into mathematics. But not at all' (Monk 1990: 418–419). As for these disputes between Wittgenstein and Turing, Monk is incisive:

> It was important to Wittgenstein's conception of his philosophical method that there could be no disagreements of opinion between himself and Turing. In his philosophy he was not advancing any theses, so how could there possibly be anything to disagree with? When Turing once used the phrase: 'I see your point', Wittgenstein reacted forcefully: 'I have no point.' If Turing was inclined to object to what Wittgenstein was saying, it could only be because he was using words in a different way to Wittgenstein – it could only be a question of giving meanings to words. Or, rather, it *could* only be a question of Turing's not understanding Wittgenstein's use of certain words. (Monk 1990: 419)

Or, rather, it could only be a question of Wittgenstein – who believed he was 'persuading people to change their style of thinking' (Wittgenstein 1966: 28) – not understanding that there was in fact a disagreement of opinion between himself and Turing. In reality, even more bizarrely, Wittgenstein told the students: 'Obviously the whole point is that I must not have an opinion' (Monk 1990: 420). But obviously Wittgenstein had an opinion on the question of the foundations of mathematics. In fact, as Monk (1990: 420) points out, contradicting his 'no opinion'-methodology, Wittgenstein 'quite clearly did have very strong opinions – opinions that were, moreover, at variance with the conception of their subject held by most professional mathematicians.' In light of these difficulties, it is not surprising that some Wittgensteinians, such as Anthony Kenny (2006: xix), do not believe that it is in the end possible to reconcile Wittgenstein's account of philosophy with the entirety of his philosophical activity in the *Philosophical Investigations*. 'We are forced in the end to make a choice between accepting his theory and following his practice' (Kenny 2006:

xix).[10] Anyway, because he was convinced that objections to his opinions could only arise from misunderstanding, the clarity that Wittgenstein was aiming at was indeed complete clarity – ultimate clarity – with which he believed that no dispute whatsoever could arise. If it did, in Wittgenstein's opinion, it could only be because words were used in a different way. In relation to this, Monk is again precise:

> Turing was inclined to say that there could be experiments in mathematics – that is, that we could pursue a mathematical investigation in the same spirit in which we might conduct an experiment in physics: 'We don't know how this might turn out, but let's see…' To Wittgenstein, this was quite impossible; the whole analogy between mathematics and physics was completely mistaken, and one of the most important sources of the confusions he was trying to unravel. But how was he to make this clear without opposing Turing's view with a view of his own? He had to: (a) get Turing to admit that they were both using the word 'experiment' in the same sense; and (b) get him to see that, in that sense, mathematicians do not make experiments. (Monk 1990: 419)

Wittgenstein, however, did not get Turing to admit that they were both using the word 'experiment' in the same sense, nor did get him to see that, in that sense, mathematicians do not make experiments. Unable to effectively persuade Turing to change his style of thinking, Wittgenstein once again attributed the dispute to a question of giving meanings to words, believing that if he expressed himself clearly, the problem would disappear *completely*:

> Turing thinks that he and I are using the word 'experiment' in two different ways. But I want to show that this is wrong. That is to say, I think that if I could make myself clear, then Turing would give up saying that in mathematics we make experiments. If I could arrange in

[10] For an analysis of other contradictions in Wittgenstein's philosophy, see Silva (2021, 2025).

> their proper order certain well-known facts, then it would become clear that Turing and I are not using the word ‘experiment’ differently.
>
> You might say: ‘How is it possible that there should be a misunderstanding so very hard to remove?’
>
> It can be explained partly by a difference of education. (Monk 1990: 419)

As Monk (1990: 420) points out, on Wittgenstein’s view, this misunderstanding so very hard to remove could not be explained by the fact that there was a substantive difference of opinion between him and Turing. For Wittgenstein, of course, it could only be a question of giving meanings to words. For this reason, Wittgenstein also failed to recognize that his dispute with Turing over the concern of mathematicians to avoid a contradiction in a system was explained by the fact that there was a substantive difference of opinion between them. In analyzing this question, Wittgenstein addressed the liar paradox by dismissing it as bosh, which led to yet another argument with Turing:

> It is very queer in a way that this [the liar paradox] should have puzzled anyone – much more extraordinary than you might think: that this should be the thing to worry human beings. Because the thing works like this: if a man says ‘I am lying’ we say that it follows that he is not lying, from which it follows that he is lying and so on. Well, so what? You can go on like that until you are black in the face. Why not? It doesn’t matter. (Monk 1990: 420)

‘One usually uses a contradiction as a criterion for having done something wrong,’ Turing said (Monk 1990: 420–421). ‘But in this case one cannot find anything done wrong.’ Yes, replied Wittgenstein – asserting something that Turing would not admit – because nothing has been done wrong. ‘One may say, “This can only be

explained by a theory of types."[11] But what is there which needs to be explained?' (Monk 1990: 421). Turing then explained not only why the paradox was puzzling, but also why it was important. The damage caused by a system containing a contradiction, he argued, 'will not come in unless there is an application, in which case a bridge may fall down or something of the sort' (Monk 1990: 421). Thus, being committed to mathematical logic and aware of Gödel's use of the liar paradox,[12] Turing was convinced of the importance of paradoxes and contradictions in general. Wittgenstein, however, was adamant about the irrelevance of paradoxes and contradictions, and consequently the discussion with Turing continued in the following lecture:

> *Turing*: You cannot be confident about applying your calculus until you know that there is no hidden contradiction in it.
>
> *Wittgenstein*: There seems to me to be an enormous mistake there. For your calculus gives certain results, and you want the bridge not to break down. I'd say things can go wrong in only two ways: either the bridge breaks down or you have made a mistake in your calculation – for example you multiplied wrongly. But you seem to think there may be a third thing wrong: the calculus is wrong.
>
> *Turing*: No. What I object to is the bridge falling down.
>
> *Wittgenstein*: But how do you know that it will fall down? Isn't that a question of physics? It may be that if one throws dice in order to calculate the bridge it will never fall down.
>
> *Turing*: If one takes Frege's symbolism and gives someone the technique of multiplying in it, then by using a Russell paradox he could get a wrong multiplication.
>
> *Wittgenstein*: This would come to doing something which we would not call multiplying. You give him a rule for multiplying and when he

[11] This theory was proposed by Russell in order to avoid the problems arising from the paradox that bears his name. For a presentation of this theory, see, for example, Monk (1990: 32).
[12] For an explanation of this use, see, for example, Goldstein (2005: ch. 3), Nagel and Newman (2008: 7C), and Smith (2007: ch. 25).

> gets to a certain point he can go in either of two ways, one of which leads him all wrong. (Monk 1990: 421)

Shortly after this discussion, Turing would abandon that course (Monk 1990: 421–422). If Wittgenstein would not admit that a contradiction is a fatal flaw in a mathematical system, Monk states (1990: 421–422), then there could be no common ground between them.[13] However, as it seems, even then Wittgenstein did not recognize that his dispute with Turing over the mathematicians' concern to avoid a contradiction in a mathematical system could be explained by the fact that there was a substantive difference of opinion between them. For Wittgenstein, indisputably, it could only be a question of giving meanings to words.

5 Conclusion

Without having persuaded Gödel, Turing, or any other prominent mathematician to change their style of thinking, Wittgenstein would eventually abandon his philosophy of mathematics in 1944. That year, as Monk (1990: 466) observed, John Wisdom wrote a brief note about Wittgenstein to be included in a biographical dictionary and, before publishing it, asked him to comment on it. Wittgenstein made only one modification, adding a final sentence to the text: 'Wittgenstein's chief contribution has been in the philosophy of mathematics.' However, two or three months later, when Rhees asked him about his work on mathematics, Wittgenstein answered with a wave of his hand: 'Oh, someone else can do that.' Despite the relevance of this episode for assessing Wittgenstein's legacy, the vast majority of commentators on his work neglect the fact that he abandoned what he considered his main philosophical contribution. This includes those who analyze Hertz's influence on his thought in general and on his philosophy of mathematics in particular. One of these researchers, Peter Kjaergaard (2002: 121) stated that Hertz played a decisive role in Wittgenstein's use of a unique philosophical method and that Wittgenstein successfully applied this method to critical problems in logic and mathematics throughout his life. As examples of these problems,

[13] For a full reading of the disputes between Wittgenstein and Turing, see Wittgenstein (1989).

Kjaergaard cited logical paradoxes and questions regarding the foundations of mathematics, which were seen by Wittgenstein as pseudoproblems that required clarity, rather than solutions (Kjaergaard 2002: 121). More specifically, Kjaergaard (2002: 121) argued that Wittgenstein's controversial response to Hilbert and Gödel was deeply influenced by Hertz and can only be fully understood when viewed in that context. To what extent Wittgenstein's response to Hilbert and Gödel was influenced by Hertz is another interesting question that will be set aside in this work. However, considering Wittgenstein's disputes with Gödel and Turing over the foundations of mathematics, as well as the fact that Wittgenstein abandoned what he considered to be his main philosophical contribution, it is difficult to agree with Kjaergaard's (unproven) claim that Wittgenstein successfully applied his method to critical problems in logic and mathematics. In reality, it is hard to believe that Wittgenstein successfully applied his method to critical problems of any kind (Silva 2025). Especially taking into account that years after proclaiming that the nimbus of philosophy had been lost, Wittgenstein himself admitted to Rhees: 'You know I said I can stop doing philosophy when I like. That is a lie! I *can't*' (Rhees 1984: 219, n.7).

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