

THE *TRACTATUS* ON UNITY*

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1. The goal of the *Tractatus*

According to the Preface to the *Tractatus*, the book shows that the reason why the problems of philosophy are posed is that the logic of our language is misunderstood (Wittgenstein 1974: 3). However, most of the body of the book appears to be devoted to posing and addressing some of the central problems of philosophy—most prominently our ability to represent things as being a certain way (*propositional representation*), either in language or in thought, and the ultimate structure of reality.

The tension is only apparent. Wittgenstein seeks to show that a correct understanding of the logic of our language will expose the posing of philosophical problems as an incoherent pursuit. To achieve this, he defends an account of propositional representation that entails substantial limitations on the propositional representations that we are able to produce. Posing the problems of philosophy has to be an exercise of our faculty of propositional representation. And the kind of propositional representation that would be required for posing these problems is not among those that we can produce. Posing the problems of philosophy is not possible because it's ruled out by the right account of propositional representation.

This argumentative strategy seems to foist on Wittgenstein a problematic attitude towards the account of propositional representation on which it is based. On the one hand, he needs to treat the account as the correct solution to the problem of propositional representation, but, on the other hand, this is surely among the problems of philosophy which the strategy seeks to expose as unposable. Hence Wittgenstein seems forced to accept a solution to a problem that he considers unposable. But the strategy carries no such commitment. Wittgenstein's goal is to show that posing the problem of propositional representation, among others, is an incoherent pursuit, and he seeks to show this by establishing that the solution to the problem that the rules of this enterprise designate as correct entails, according to the rules of the enterprise, that the problem can't be posed, and that anything that looks like a solution achieves no such thing. This is an indictment of the rules and of the enterprise they define. Acceptance of the Tractarian 'solution' is only a transitory stage in the process, of which no trace is left once we have exposed as incoherent the enterprise of trying to solve the problem.

However, Wittgenstein's strategy doesn't work for everybody. If the strategy is to work for you, you need to accept that Wittgenstein's account of propositional representation is correct and that it imposes the limitations on our representational faculty that he thinks it does. If you fail to follow Wittgenstein on either of these points, you will be under no obligation to abandon your conviction that the enterprise of posing the problems of philosophy is perfectly legitimate. Then you will regard Wittgenstein's attempts to solve these problems as contributions to a legitimate enterprise, and you will be able to assess his proposals in this light.

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I am one of these recalcitrant readers of the *Tractatus*. I don't think Wittgenstein succeeds in showing that the account of propositional representation that the rules of the enterprise designate as correct entails, by these same rules, that it's not possible to pose the problems of philosophy. Hence, for me, contrary to what their author thinks, the propositions of the *Tractatus* succeed in expressing solutions to these problems. Furthermore, although I don't think his solutions are ultimately successful, I believe that some of his main ideas advance our understanding of the problems in important ways.

To be sure, around the time the *Tractatus* was completed, one hundred years ago, Wittgenstein would have thought that the virtues that I claim to find in his work are entirely fictitious, since I'll be crediting him for valuable contributions to what he took then to be an incoherent enterprise. However, I'm equally confident that his reaction would have been very different a few years earlier, at the time when he started to develop the ideas that I am going to discuss. The pre-Tractarian manuscripts leave me in no doubt that at that time he saw himself as making contributions to the enterprise of philosophy, and in particular to the explanation of our faculty of propositional representation.

2. Unity in semantics and in metaphysics

In the *Tractatus* Wittgenstein addresses a wide range of philosophical problems. I'm not going to consider all or even most of them. I'm going to concentrate on Wittgenstein's contributions to the solution of two problems, one metaphysical and the other semantic, that are often seen as versions of one—the *problem of unity*.

The metaphysical problem of unity is faced by a very appealing account of the nature of facts, according to which they are composite items, produced by the combination of more basic constituents, including, in the standard version of the view, individuals, properties and relations. I am going to refer to this as the Compositional Account of Facts (CAF). The problem concerns the explanation offered by CAF of what it is for a fact to obtain. According to CAF, the fact, say, that Pavarotti sings, is a compound, with a particular, Pavarotti, and a universal, the property of Singing, as its constituents. The problem can be presented as arising for the contention that these are the only constituents of the fact. The mere coexistence of Pavarotti and the property of Singing doesn't produce the fact. The fact that Pavarotti sings could fail to obtain even if both Pavarotti and the property of Singing exist. In order for the fact to obtain, the particular has to be connected with the universal in the way that we call *instantiation*—Pavarotti needs to instantiate the property of Singing. But this seems to amount to the admission that the fact that Pavarotti sings has, not two constituents, but three. In addition to Pavarotti and the property of Singing, we also need to count the (binary) relation of Monadic Instantiation as one of its constituents.

But if this is right, the same line of reasoning can be applied to the current hypothesis concerning the composition of the fact that Pavarotti sings. The mere coexistence of Pavarotti, the property of Singing and the relation of Monadic Instantiation doesn't produce the fact. The three items need to be connected with one another in the way that we call *binary instantiation*—Pavarotti and the property of Singing (in that order) need to instantiate Monadic Instantiation. But this brings in an additional constituent to our analysis of the fact that Pavarotti sings. In addition to Pavarotti, the property of Singing and the relation of Monadic Instantiation, we also need to count the (ternary) relation of Dyadic Instantiation as a constituent of the fact. And since the reasoning can be repeated at each stage, we never reach a satisfactory account of the composition of the fact that Pavarotti

sings.¹ This is a version of the argument that has come to be known as Bradley's regress (Bradley 1893: 28), whose origins can be traced back to the argument presented by Parmenides in the eponymous Platonic dialogue against the theory of forms (Plato 1987: 132 a-b).²

The semantic problem of unity arises for a strategy for explaining our faculty of propositional representation that exploits the resources of CAF. According to this strategy, language and the mind make contact with the world in the first instance at the level of the items from whose combination facts are produced. Thus, for example, a mental or linguistic item that represents Pavarotti as singing is connected in the first instance to the individual Pavarotti and the property of Singing. Then the representational item will represent the world as containing a fact produced by the combination of the individual Pavarotti and the property of Singing. The representation will be true if the world contains such a fact, and false if it doesn't. The problem arises from the reflection that singling out the individual and the property is not enough for representing things as being a certain way—for representing Pavarotti as singing. We can see this in the linguistic case when we compare what is achieved by the sentence "Pavarotti sings", with what is achieved by a mere list of words: "Pavarotti", "sings". For mental representation, consider the difference between bringing to consciousness Pavarotti and the property of Singing, on the one hand, and having the thought that Pavarotti sings, on the other. The problem consists in explaining what else will be required for representing things as being a certain way in mind or language, besides singling out the items that would need to be combined with one another in order for things to be as we represent them as being. As we shall see in due course, the semantic problem, like its metaphysical counterpart, can be presented in the form of an infinite regress.

In the remainder of this paper I want to concentrate on the contributions that the *Tractatus* makes to the solution of these problems. I am going to argue that on both points the book makes important proposals that advance our understanding of the issues.

3. Semantic unity

I want to start by considering Wittgenstein's contribution to the semantic version of the problem. Wittgenstein encountered the problem in the theories of judgment that Russell was developing when Wittgenstein arrived in Cambridge to work under him in 1911. Judgments, for Russell, are mental episodes in which we represent the world in consciousness as being a certain way. With his theories of judgment, Russell sought to explain how the mind is related to the world when we judge. A crucial challenge for this enterprise is posed by the fact that judgments can be false as well as true. This circumstance blocks an account according to which in a judgment the mind is related to a fact. The proposal would not work for false judgments. I can judge that Pavarotti raps, but my doing so cannot consist in a relation between me and the fact that Pavarotti raps, since there is no such fact.

Russell's first strategy for overcoming this obstacle was to postulate a range of entities to act as what I am related to when I judge falsely, in the same way in which I am related to a fact when I judge truly. He referred to these items as *objective non-facts*, and to facts and objective non-facts

¹ Alternatively, the problem can be construed as involving an infinite regress of different facts, with the fact that Pavarotti instantiates the property of Singing treated as different from the fact that Pavarotti sings, etc. Tyler Burge has argued that this solves the problem (Burge 2007). I've argued that it doesn't (Zalabardo forthcoming).

² As presented in the *Parmenides*, the problem relies on fairly implausible Platonic assumptions, but see (Ryle 1939), where the argument is freed from these assumptions.

together as *propositions*. The view that judgment is a relation between the mind and a proposition, in this sense, is, in a nutshell, Russell's dual-relation theory of judgment (Russell 1903, 1904).

But by 1910 Russell had abandoned this strategy and had replaced it with an alternative approach. On the new approach, there isn't a single item to which my mind is related when I judge. On the contrary, my mind is related to a multiplicity of items—the constituents of the fact that would have to obtain in order for my judgment to be true. When I judge that Pavarotti sings, my mind is related to Pavarotti and to the property of Singing; when I judge that Pavarotti raps, my mind is related to Pavarotti and to the property of Rapping. My judgment that Pavarotti sings is true because there is a fact with Pavarotti and the property of Singing as its constituents. My judgment that Pavarotti raps is false because there isn't a fact with Pavarotti and the property of Rapping as its constituents. This is the central thought of Russell's multiple-relation theory of judgment (Russell 1910, 1912). It is easy to see that Russell's new theory is a version of the semantic approach for which the problem of unity arises.

This basic idea had to be refined in several ways before it could provide a satisfactory theory, and between 1910 and 1913 Russell endorsed, in quick succession, several versions of the view. One of the challenges that precipitated these changes was the problem of order, or direction. On the multiple-relation theory, when Othello judges that Desdemona loves Casio his mind is related to Desdemona, Casio and the relation of Love. But we can't say that Othello's judgment is true just in case there is a fact with Desdemona, Casio and the relation of Love as its constituents. Casio loving Desdemona would be a fact with these constituents, but we wouldn't want to say that the obtaining of this fact would suffice for making Othello's judgment true.

What matters for our purposes is a different challenge faced by the theory—one that Russell didn't fully grasp until the 1913 manuscript published posthumously under the title *Theory of Knowledge* (Russell 1984).³ The problem arises from the fact that bringing to consciousness Pavarotti and the property of Singing does not suffice for judging that Pavarotti sings. A mental episode in which I bring these two items to consciousness might fail to represent things as being a certain way—in particular, it might fail to represent Pavarotti as singing.

In *Theory of Knowledge* the issue is discussed in its application, not to judgment, but to understanding—in our example, to the understanding of what someone says when they say that Pavarotti sings. Russell states repeatedly what would be missing from an account according to which this understanding consists in bringing to consciousness Pavarotti and the property of Singing. In order to understand what someone says when they say that Socrates precedes Plato, Russell tells us, it is necessary to understand “how Socrates and Plato and ‘precedes’ are to be combined” (Russell 1984: 99). Understanding the statement ‘a is similar to b’ “would not be possible unless we knew how they [a, b and similarity] are to be put together” (Russell 1984: 101). In order to understand the proposition ‘A precedes B’, in addition to knowing what is meant by the words that occur in it, “it is also necessary to know how these three terms [A, B and preceding] are to be combined” (Russell 1984: 111). And in order to understand ‘A and B are similar’ “we must know what is supposed to be done with A and B and similarity, i.e. what it is for two terms to have a relation” (Russell 1984: 116).

Returning to our example, in order to understand the proposition that Pavarotti sings, in addition to bringing to consciousness Pavarotti and the property of Singing, I must grasp how these two items are represented as combined by the proposition—how they would have to be combined in order for

³ See (Candlish 1996) for an account of Russell's growing awareness of this problem as distinct from the problem of order.

the proposition to be true, in order for things to be as the proposition represents them as being. I am going to refer to this as the *mode-of-combination problem*. It is the problem of explaining how, in an episode of understanding, the subject is aware of the way in which the items the proposition is about are represented by the proposition as combined with one another—of how these items would have to be combined with one another in order for the proposition to be true. The mode-of-combination problem is the version of the semantic problem of unity faced by Russell’s multiple-relation theory.

There’s one approach to the mode-of-combination problem that generates an infinite regress. On this approach, modes of combination are entities that we are capable of bringing to consciousness. We can bring to consciousness, for example, the relation of Monadic Instantiation, and the mode-of-combination problem is solved for subject-predicate propositions by reference to awareness of Monadic Instantiation. On this approach, I understand the proposition that Pavarotti sings by bringing to consciousness not only Pavarotti and the property of Singing, but also the relation of Monadic Instantiation. By grasping this relation, I become aware of how Pavarotti and the property of Singing are represented as combined with one another by the proposition—of how they have to be combined in order for the proposition to be true.

But this proposal doesn’t remove the problem. Bringing to consciousness Pavarotti, the property of Singing and the relation of Monadic Instantiation doesn’t suffice for representing in mind Pavarotti as singing, and hence for understanding the proposition that Pavarotti sings. The additional object of awareness doesn’t improve matters, as a subject who has brought to consciousness these three items might not grasp the way in which they have to be combined in order for Pavarotti to sing—in order for the proposition to be true: the pair consisting of Pavarotti and the property of Singing has to instantiate the relation of Monadic Instantiation.

We could try to remedy the situation by introducing an additional object of awareness. What needs to happen to Pavarotti, the property of Singing and the relation of Monadic Instantiation in order for Pavarotti to sing is that the particular and the property need to bear the relation of Dyadic Instantiation to the relation of Monadic Instantiation. This might suggest that the problem would be solved if we construed understanding of the proposition that Pavarotti sings as involving awareness of the three items already considered *and* the relation of Dyadic Instantiation. But this leaves us in the same situation that we faced before. We are off on a regress. Adding objects of awareness that embody modes of combination does not solve the problem.

Wittgenstein arrived in Cambridge in the autumn of 1911, with the intention of studying with Russell. He stayed in Cambridge until October 1913. In this period, Russell and Wittgenstein developed a famously intense personal and philosophical relationship. We know that Russell discussed with Wittgenstein the views that he was developing in May 1913 in the *Theory of Knowledge* manuscript. And Russell’s ideas had a profound influence on Wittgenstein’s conception of the problems. Wittgenstein encountered the semantic problem of unity in the form that Russell had given to it in May 1913, i.e. as the mode-of-combination problem. I am going to argue that a central component of the views advanced in the *Tractatus* should be seen as Wittgenstein’s proposal for dealing with the problem.

In *Theory of Knowledge*, Russell sought to solve the mode-of-combination problem by introducing forms in his analysis of understanding.⁴ But Wittgenstein’s pre-Tractarian manuscripts show that, for

⁴ Notice, however, that Russell’s proposal was not the regress-generating strategy that we have just considered. See (Zalabardo 2015: §1.7) for details.

Wittgenstein, Russell's appeal to forms was fraught with difficulties. Wittgenstein thought that the items that Russell identified with forms (full existential generalisations) couldn't play the role that Russell had assigned to them in his theory of understanding, and, more generally, no entity could play this role. As early as the "Notes on Logic", dictated in October 1913, Wittgenstein's verdict on Russell's appeal to forms is unambiguously negative: "There is no thing which is the form of a proposition [...] This goes against Russell's theory of judgment" (Potter 2009: 282). Wittgenstein's discussion of these ideas clearly indicates, first, that Wittgenstein was concerned with the problem that Russell had tried to solve with forms and, second, that Wittgenstein was convinced that forms could not be invoked in the solution to the problem.

What is needed is a way of construing the subject's awareness of how, in our example, Pavarotti and the property of Singing are represented as combined by the proposition that Pavarotti sings. As we've just seen, this cannot be achieved by thinking of the mode of combination as an object and including awareness of this object in our account of understanding. Another approach is required.

We get a suggestion of how this can be achieved if we go back to the unworkable account of judgment with which we started, according to which judgment is a relation between the mind and a fact. If the mind has the power to bring to consciousness the fact that Pavarotti sings and its structure, understanding of the proposition that Pavarotti sings can be explained in this way. By bringing to consciousness the fact that Pavarotti sings, the subject will grasp, not only the constituents of the fact, but also the way in which they are combined with one another in the fact. And this grasp doesn't lead to an infinite regress. We are not invoking a third item, whose connection to the previous two would then have to be grasped. The subject doesn't grasp a mode of combination in isolation. She grasps an actual combination and abstracts from this the way in which its constituents are combined.

This model of understanding offers a solution to the mode-of-combination problem, but, as we have seen, it cannot serve as our general account of understanding, since it's only applicable to the understanding of true propositions. The proposition that Pavarotti raps cannot be understood in this way. This would require bringing to consciousness the fact that Pavarotti raps, but since the proposition is false there is no such fact. The item that would need to be brought to consciousness in order to understand the proposition in this way simply doesn't exist.

Nevertheless, a modification of this approach will give rise to an account of understanding that is equally applicable to true and false propositions. Notice that the source of the problem with false propositions is that the fact grasp of which is supposed to produce understanding is the same as the fact that would make the proposition true. But this is not an essential component of the solution to the mode-of-combination problem. For the purpose of solving this problem, understanding can be taken to consist in grasp of any other fact, provided that its constituents are combined with one another in the way in which objects would have to be combined in order for the proposition to be true. Thus, for example, by grasping the fact that Messi dribbles and its structure, we grasp the way in which Pavarotti and the property of Rapping would have to be combined in order for the proposition that Pavarotti raps to be true—they would have to be combined in the same way in which the constituents of the fact that Messi dribbles are actually combined with one another in that fact. The crucial consequence of this move is that the resulting account is applicable to the understanding of false propositions as well as true propositions. The fact that I grasp when I understand the proposition has to obtain, but the fact on whose obtaining the truth value of the proposition depends may or may not obtain.

Hence we have reached an account according to which we understand a proposition by grasping a fact whose constituents are combined with one another in the same way in which objects in the world would have to be combined with one another in order for the proposition to be true. This account of understanding is, I submit, the central idea of Wittgenstein's picture theory of representation. The pictures, thoughts and propositions of the *Tractatus* are the facts that we grasp, on this account, in episodes of understanding.⁵

Wittgenstein states very clearly that what he is calling pictures are facts (TLP 2.141), and that the advantage of using facts to represent the world as being a certain way is that the constituents of a fact are combined with one another in a certain way (TLP 2.14, 2.031), i.e. that the fact exemplifies a mode of combination. This circumstance enables us to use a fact to represent things as combined in a certain way:

2.15 The fact that the elements of a picture are related to one another in a determinate way represents that things are related to one another in the same way.

Hence, by using a fact to represent things as being a certain way we bring a mode of combination into the representational episode—we represent things in the world as combined with one another in the same way in which the constituents of the depicting fact are combined with one another.⁶ And this is achieved without generating an infinite regress. We don't answer the question of how we are representing objects in the world as combined with one another by identifying an additional object that plays the role of a mode of combination, whose combination with the objects it's supposed to combine would then need to be grasped. We are answering the question by singling out an instance of the mode of combination in question: we represent objects in the world as combined with one another *like that*—as the constituents of the depicting fact are combined with one another.

For pictorial representation, then, we can provide a satisfactory explanation of how the way in which objects are represented as combined with one another is brought into representational episodes. Hence, if mental and linguistic representation followed the pictorial model, we would have at our disposal a solution to the mode-of-combination problem. And this is precisely what Wittgenstein goes on to claim. Thoughts are pictures of a certain kind (TLP 3), and propositions give expression to thoughts (TLP 3.1). Propositional representation is then directly characterised as following the pictorial model:

3.14 What constitutes a propositional sign is that in it its elements (the words) stand in a determinate relation to one another.
A propositional sign is a fact.

⁵ The main ideas of this account of the relationship between Wittgenstein's picture theory and Russell's theory of judgment were first presented by David Pears. See (Pears 1977).

⁶ We can represent things pictorially as combined with one another in a certain way even if these things are not so combined, but there have to be other things—the constituents of the picture—exemplifying this same mode of combination. Notice that Wittgenstein had criticized Russell's multiple-relation theory for having this consequence: "I thought that the possibility of the truth of the proposition ϕa was tied up with the fact $(\exists x, \phi). \phi x$. But it is impossible to see why ϕa should only be possible if there is another proposition of the same form. ϕa surely does not need any precedent. (For suppose there existed only the two elementary propositions " ϕa " and " ψa " and that " ϕa " were false: Why should this proposition make sense only if " ψa " is true?)" (Wittgenstein 1979: 17). I'm indebted on this point to an anonymous referee.

Propositions, like all pictures, are facts whose constituents (the words) are combined with one another in a certain way, and they represent objects in the world (the referents of the words) as combined with one another in that same way. Commentators have often been puzzled by how the pictorial model could apply to linguistic representation. If we think of the sentence “Pavarotti admires Callas” as a fact, whose constituents are combined with one another in a certain way, it is natural to think of it as the fact, say, that “Pavarotti”, “admires” and “Callas” are concatenated with each other in this order. But then it seems that “Pavarotti admires Callas” cannot represent Pavarotti as admiring Callas. All it can do is represent Pavarotti, the relation of Admiring and Callas as concatenated with one another in that order. However, this characterisation of the situation doesn’t take account of two important points.

First, if a proposition is to represent the referents of its constituents as combined with one another in the same way as the constituents are combined in the proposition, then the constituents of the proposition have to have the same combinatorial possibilities as their respective referents. Hence in a proposition that represents Pavarotti as admiring Callas, the representatives of Pavarotti and Callas have to be particulars, e.g., the words “Pavarotti” and “Callas”, but the representative of the relation of Admiring has to be a binary relation—e.g. the relation ρ that x bears to y when x is to the left of y with the word “admires” between them. Then the fact with which “Pavarotti admires Callas” has to be identified is not the fact that “Pavarotti”, “admires” and “Callas” are concatenated with each other in this order, but rather the fact that “Pavarotti” ρ “Callas”.

This might not seem to be much progress, since all we seem to be able to depict with this fact is Pavarotti standing to the left of Callas with the word “admires” between them. But here we would be assuming that the constituents of “Pavarotti” ρ “Callas” are “Pavarotti” and “Callas”, while ρ is the way in which they are combined. We avoid this pitfall if we take account of the second point: thoughts and propositions are pictures of a special kind—they are *logical* pictures. This means, in a nutshell, that the way in which its constituents are combined with one another is a logical mode of combination, with every non-logical aspect of the proposition treated as a constituent. On this construal, the constituents of “Pavarotti” ρ “Callas” are “Pavarotti”, “Callas” and ρ , put together by the logical relation of binary instantiation—i.e. “Pavarotti” bearing ρ to “Callas”. Now, if “Pavarotti” stands for Pavarotti, “Callas” for Callas and ρ for the relation of Admiring, “Pavarotti” ρ “Callas” will represent Pavarotti, Callas and the relation of Admiring as combined with one another in the same way in which the constituents of the proposition are combined with one another. In this way, it will represent Pavarotti as admiring Callas, as desired. I take this to be the account of how propositions represent that Wittgenstein offers in the following section of the *Tractatus*:

3.1432 Instead of, ‘The complex sign “ aRb ” says that a stands to b in the relation R ’ we ought to put, ‘That “ a ” stands to “ b ” in a certain relation says *that* aRb .’⁷

I want to highlight one controversial aspect of this construal of Wittgenstein’s views. If Wittgenstein was trying to solve the mode-of-combination problem, his goal was to explain how to bring into representational episodes awareness of how objects in the world are represented as combined—of how they would have to be combined for things to be as they are represented as being. Read in this

⁷ For this construal of Wittgenstein’s notion of logical picturing, see (Zalabardo 2015: §2.5). See also Peter Long’s illuminating exegesis of TLP 3.1432 (Long 1969).

way, Wittgenstein's position is that we bring the mode of combination to consciousness by grasping the fact that we use as a picture and its structure—the way in which its constituents are combined with one another. But what form is this grasp supposed to take? One thing seems clear: if this grasp could only take the form of pictorial representation (a picture of a picture) we would be off on a new regress.⁸ The proposal is only viable if it presupposes a more basic form of grasp of facts and their structure—one that isn't pictorial in nature. I want to suggest that this more basic type of grasp is provided in Wittgenstein's framework by the notion of showing. A picture, he tells us at TLP 2.172, "displays" (aufweisen) its pictorial form. Our access to logical form is described in similar terms at TLP 4.121: Logical form is "mirrored" (spiegeln) in propositions, it "expresses *itself*" (sich ausdrücken) in language. Propositions "show" (zeigen), "display" (aufweisen) the form of reality. And the same mode of access is invoked to explain our grasp of the pairings of the constituents of the picturing fact with the objects they stand for: "one proposition '*fa*' shows that the object *a* occurs in its sense" (TLP 4.1211). On the reading that I have sketched, I would grasp the fact that I use as a picture, its structure, and the pairings of its constituents with their referents, with the faculty that enables me to be a recipient of what is shown. This type of grasp is not explained, but presupposed in Wittgenstein's proposal. It should be clear however that presupposing this kind of grasp doesn't make picturing redundant. What we are presupposing is a faculty of grasping actually obtaining facts and their structure, whereas what we are explaining in terms of this faculty is grasp of combinations that may or may not obtain—the kind of grasp of Pavarotti as rapping that enables us to understand the proposition that Pavarotti raps, or judge that he does, even if, as a matter of fact, he's never engaged in this musical genre.⁹

It should be clear from my account of pictorial representation what I take to be Wittgenstein's main reason for thinking that propositions and thoughts are pictures—that linguistic and mental representation is pictorial in nature. Propositions (and thoughts) have to be pictures because there is no alternative. Pictorial representation is the only method by which we can represent things as being a certain way, as it offers the only viable solution to the mode-of-combination problem. But propositions and thoughts represent things as being a certain way. Therefore they have to be pictures.

There is one passage in the *Tractatus* where Wittgenstein appears to offer an additional argument in support of the claim that propositions are pictures. In the 4.0s, Wittgenstein takes up again the issue of the pictorial character of propositions. The claim that propositions are pictures is restated at TLP 4.01:

A proposition is a picture of reality.

A proposition is a model of reality as we imagine it.¹⁰

⁸ And, in any case, Wittgenstein doesn't think that the way in which the constituents of a proposition are combined with one another can be represented with propositions. See TLP 4.12.

⁹ On this reading, the faculty of grasping what's shown would be playing for Wittgenstein the role that the notion of acquaintance played for Russell. See (Zalabardo 2015: §2.11) for details.

¹⁰ Here, as elsewhere, the verb *to imagine* is used by the translators to render the reflexive use of the verb *denken* (as we imagine it = so wie wir sie uns denken). This may well be the best option overall, but it doesn't display as clearly as the original that thought is involved in the representation under discussion. Instead of "as we imagine it" Ogden has "as we think it is" (Wittgenstein 1922).

TLP 4.01 is followed by a series of sections numbered as dependent on it (TLP 4.011-4.016). The next proposition after these is TLP 4.02:

We can see this from the fact that we understand the sense of a propositional sign without its having been explained to us.

There is no obvious referent for “this” in the section immediately preceding TLP 4.02. This, together with Wittgenstein’s numbering, lends strong support to the hypothesis that it refers back to TLP 4.01, and hence that TLP 4.02 offers a reason for thinking that a proposition is a picture of reality. The connection is confirmed by the next section:

4.021 A proposition is a picture of reality: for if I understand a proposition, I know the situation that it represents. And I understand the proposition without having had its sense explained to me.

In these passages, Wittgenstein derives the conclusion that propositions are pictures from the premise that there is something (the sense of the proposition) that doesn’t need to be explained to us in order to understand the proposition. The key to interpreting the argument is to decide what it is that doesn’t have to be explained to us. Notice first that there is something that does need to be explained to us if we are to understand a proposition:

4.026 The meanings of simple signs (words) must be explained to us if we are to understand them.

In other words, explanation is required in order to come to know the constituents of the represented complex—which objects the proposition represents as combined with one another. So, what else do we need to know in order to understand a proposition but doesn’t have to be explained to us? Clearly the answer is the way in which the constituents of the represented complex would have to be combined with one another in order to form the complex. So understanding a proposition requires knowing both the constituents and the mode of combination of the represented complex. And whereas the former need to be explained to us, explanation of the latter is not required. This is the phenomenon that Wittgenstein is adducing in support of the pictorial character of propositions.

It is not hard to see why the premise would support the conclusion. If a proposition were ‘a set of names’, ‘a blend of words’, then understanding of the proposition would enable us to grasp the constituents of the represented complex. What it wouldn’t enable us to grasp is the way in which these constituents would have to be combined in order to form the represented complex. Unless the mode of combination were explained to us, we wouldn’t grasp the sense of the proposition. Hence, since the mode of combination doesn’t need to be explained to us, a proposition is not a set of names. However, if propositions are pictures it becomes very easy to understand why the mode of combination doesn’t need to be explained to us. If the proposition is a fact, then in grasping the fact we grasp both its constituents and how they are combined with one another. If now the referents of the constituents are explained to us, we will know which objects have to be combined with one another to form the represented complex. Crucially, knowing how these constituents would have to be combined with one another requires no additional explanation. The way in which they would have to be combined is the way in which the constituents of the proposition are actually combined, and this we have already grasped in grasping the fact the proposition consists in.

Before leaving the semantic problem of unity I want to suggest that the solution I am attributing to Wittgenstein seems to make an appearance, as a target of attack, in Russell's *Theory of Knowledge*. I have in mind the view that Russell attributes to Hume in Chapter IV of Part II:

[...] Hume conceives thought as conjoining the *ideas* of objects, while what makes a thought *true* is a conjunction of the *objects*. (Russell 1984: 139)

The view that the constituents of the thought are different from the constituents of the represented complex is clearly an aspect of Wittgenstein proposal. Wittgenstein doesn't refer to the constituents of the thought as ideas, but he doesn't seem to rule out the possibility that they are psychic items of some kind. This is how he puts the point in a letter to Russell of August 1919, in which he replies to Russell's queries about the *Tractatus*:

"Does a Gedanke consist of words?" No! But of psychical constituents that have the same sort of relation to reality as words. What those constituents are I don't know. (McGuinness 2008: 99)

Russell is fully aware of the advantages of this move. The passage continues:

This gives, of course, a short and easy way of defining falsehood, and of distinguishing between propositions and the facts that make them true. (Russell 1984: 139)

Russell can't countenance the Humean position, as he is firmly committed to the view that the constituents of the represented complex have to be constituents of the judgment complex:

For us, owing to our rejection of "ideas" as a *tertium quid* between subject and object, no such explanation is possible. When we judge that mercury is heavier than gold, *mercury* and *heavier* and *gold* must themselves be constituents of the event which is our judging [...]. (Russell 1984: 139-40)

But what's interesting for our purposes is a different difficulty that he raises for the view. As Russell characterizes the proposal, when we judge "we bring our idea of mercury in some relation with our idea of gold" (Russell 1984: 140). Russell's problem with this concerns the nature of the relation between ideas that is supposed to play this role:

The relation between my idea of mercury and my idea of gold cannot be "heavier", since my ideas are not supposed to have weight. Nor can it be the *idea* of "heavier", since that is not a relation. It must, therefore, be some new relation, in some way related to "heavier", subsisting between my ideas, but not necessarily present to consciousness when I judge. (Russell 1984: 140)

Thus, on the view that, according to Russell, the Humean must adopt, we represent mercury as being heavier than gold with an actually obtaining complex in which an object that stands for mercury bears a relation that stands for "heavier" to an object that stands for gold. This account of representation clearly satisfies our characterisation of logical picturing. It corresponds to the way in which, in the example we used, the fact that "Pavarotti" ρ "Callas" can represent Pavarotti as admiring Callas. Taken as a characterisation of logical picturing, Russell's account is incomplete, since it doesn't mention the identity between the way in which the constituents of the picturing complex are combined with one another and the way in which the constituents of the represented complex

would have to be combined with one another. Nevertheless, what he says about the Humean position is clearly compatible with logical picturing.

Russell sees no merit in the proposal:

This, however, is obviously absurd. My judging obviously consists in my believing that there is a relation between the actual objects, *mercury* and *gold*, not in there being in fact a relation between my ideas of these two objects. Thus the whole nature of belief must necessarily be misunderstood by those who suppose that it consists in a relation between “ideas”, rather than in the belief of a relation between objects. (Russell 1984: 140)

If this is offered as an argument against the Humean view, it is not very compelling. The Humean could concede that there being in fact a relation between two ideas doesn't amount to representing mercury as being heavier than gold. However she could contend that *grasp* of this fact, and of the correlations between the ideas and the relation between them, on the one hand, and mercury, gold and the relation “heavier”, on the other, is what representing mercury as being heavier than gold consists in.¹¹ By taking this line, the Humean would be adopting the position that I am attributing to Wittgenstein.

4. Metaphysical unity

Let's turn now to the metaphysical problem of unity. Russell's concern with the problem is undeniable. It is posed in a famous passage of *The Principles of Mathematics* in the context of the dual-relation theory (Russell 1903: 49-50). Propositions, both facts and objective non-facts, are composite items, and we need an explanation of how their unity arises from the manifold of their constituents. Russell confesses that he can't provide a satisfactory solution, but he asserts that each proposition, and hence each fact, will have among its constituents a relation that is responsible for the generation of unity.

When the dual-relation theory is replaced by the multiple-relation theory, propositions disappear from Russell's ontology, but facts continue to be constructed as compounds whose unity is generated by relations. But from 1912, forms are also assigned a role in underpinning the unity of facts. Forms make their first substantial appearance in Russell's work in an unpublished manuscript of that year, entitled “What Is Logic?”. Here we are told that “[i]n a complex, there must be something, which we may call the *form*, which is *not* a constituent, but the way the constituents are put together” (Russell 1992: 55).

In *Theory of Knowledge* forms are introduced in the last chapter of Part I, in exactly the same terms as in “What is Logic?”:

It is obvious, in fact, that when *all* the constituents of a complex have been enumerated, there remains something which may be called the “form” of the complex, which is the way in which the constituents are combined in the complex. (Russell 1984: 98)

¹¹ If the position is articulated along these lines, then Russell's contention that the relation between the ideas might not be present to consciousness when I judge would pose an obstacle to the view. For one could argue that grasp of the picturing fact would require grasp of its constituents, including the relation that refers to “heavier”.

This way in which the constituents are combined in the complex, we are told once more, is not another constituent:

[...] the form is not a “thing”, not another constituent along with the objects that were previously related in that form. (Russell 1984: 98)

And the reason Russell offers for treating the form as a non-constituent is precisely the threat of the infinite regress that gives rise to the metaphysical problem of unity:

[The form of “Socrates is human”] cannot be a new constituent, for if it were, there would have to be a new way in which it and the two other constituents are put together, and if we take this way as again a constituent, we find ourselves embarked on an endless regress. (Russell 1984: 98)¹²

In the *Tractatus*, Wittgenstein seems to agree with Russell that facts should be construed as combinations of items:

2. What is the case—a fact—is the existence of states of affairs.

2.01 A state of affairs (a state of things) is a combination of objects (things).

However, unlike Russell, Wittgenstein didn't think that the combination of constituents would have to be underpinned from outside by something that isn't a constituent:

2.03 In a state of affairs objects fit into one another like the links of a chain.

The analogy has to be understood as expressing the rejection of the idea that the combination of objects into a state of affairs requires the involvement of an item over and above the constituents. Evidence for this reading is provided by a letter to C.K. Ogden, in which Wittgenstein comments on Ogden's translation of 2.03:

Here instead of ‘hang one on another’ it should be ‘hang one in another’ as the links of a chain *do!* The meaning is *that there isn't anything third* that connects the links but that the links *themselves* make connection with one another. So if ‘in’ in this place is English please put it there. If one would hang *on* the other they might also be glued together. (Wittgenstein 1973: 23)

The involvement of a non-constituent is also rejected in a passage of the *Notebooks*:

The reality that corresponds to the sense of the proposition can surely be nothing but its component parts, since we are surely *ignorant* of *everything* else. (Wittgenstein 1979: 31)

So, whereas Russell thought that there couldn't be a combination without a non-constituent contributing the mode of combination of the constituents, Wittgenstein thought that no such thing was required.

¹² Francisco Rodríguez Consuegra has argued that Russell introduced forms into complexes to deal with Bradley's regress, and that the regress that Russell invokes to justify treating forms as non-constituents is a version of Bradley's regress (Rodríguez Consuegra 2002). See also (Hochberg 1984). Russell's concern with Bradley's regress is undeniable. See, e.g., (Russell 1989: 146).

We find a similar situation with respect to the facts that play the role of propositions according to the *Tractatus*. Here, once again, Wittgenstein uses the chain analogy to explain how the constituents of a proposition are combined with one another, indicating that the unity of a proposition doesn't have to be underpinned from the outside by a non-constituent:

4.22 An elementary proposition consists of names. It is a nexus, a concatenation of names.

So Wittgenstein, unlike Russell, didn't see the need to appeal to a non-constituent in order to explain how the unity of facts in general, and of the facts that play the role of propositions in particular, is produced out of the multiplicity of its constituents. What's the reason for this? Did Wittgenstein reject the difficulty that Russell had tried to solve by treating forms as non-constituents? Or did he have an alternative strategy for dealing with this difficulty?

I am going to argue that the *Tractatus* advances a metaphysical picture for which these questions don't arise. According to the *Tractatus*, facts in general, and the facts that play the role of propositions in particular, should not be construed as compounds. They don't arise from the combination of constituents. They are ultimate, indivisible units. On this account, there simply isn't a problem of how the unity of facts and propositions arises from the multiplicity of their constituents. Wittgenstein doesn't have a problem with metaphysical unity, not because he has found a way of saving CAF from the difficulty, but because he rejects CAF.

I want to introduce the Tractarian account of facts and propositions by concentrating first on Wittgenstein's treatment in the 3.31s of the facts that play the role of propositions and their relationship to their parts, to which he refers as *expressions* or *symbols*. I want to start by considering three specific passages in which expressions are characterised. In the first, we are told that an expression is

Everything essential to their sense that propositions can have in common with one another (3.31).

According to the second, an expression is

the common characteristic mark of a class of propositions. (3.311)

In the third, we are told that an expression is presented by means of a *propositional variable*, i.e.

a variable whose values are the propositions that contain the expression. (3.313)

As other interpreters have suggested (Palmer 1988; Morris 2008), I think that these passages put forward a picture in which propositions are not regarded as composite entities, produced by the combination of more simple items. They are treated instead as basic units. What on other accounts is regarded as the constituent parts of propositions, Wittgenstein treats instead as features that propositions share with one another. On this view, propositions are not produced by the combination of expressions. Just as people share heights, incomes, hobbies and character traits without being compounded from these items, propositions share characteristic marks without being compounded from them.

The conception of propositions and their constituents that, on this reading, Wittgenstein puts forward in the 3.31s is akin to a view that has been attributed to Frege, and Hans Sluga has labelled the *principle of the priority of judgment over concept, or priority principle*.¹³ According to the priority principle,

[c]oncepts must not be considered as given independently of the judgments in which they occur. [...] Concepts are always reached through the splitting up of judgments, through analysis; they are not given separately and the judgment is not composed out of previously given constituents. (Sluga 1987: 86)¹⁴

This conception reverses the understanding of the relationship between judgments and concepts that Frege found in Aristotelian and Boolean logic, according to which concepts are “pre-existent and ready-made” and judgments are “composed from them by aggregation” (Sluga 1987: 85).

Frege’s posthumous writings and correspondence furnish what I regard as substantial evidence of his commitment to the priority principle throughout his career. Thus, in 1880/81, when comparing his own logic to the Boolean approach, he wrote:

As opposed to this, I start out from judgements and their contents, and not from concepts [...] I only allow the formation of concepts to proceed from judgements. (Frege 1979a: 16)

And in a letter dated in 1882 he wrote:

Now I do not believe that concept-formation can precede judgement because this would presuppose the independent existence of concepts, but I think of a concept as having arisen by decomposition from a judgeable content. (Frege 1980: 101)

In 1903 he spells out the consequences of this approach for the ontological status of concepts:

It is obvious that we cannot represent a concept as something independent in the way we can represent an object. A concept can only occur in a complex. One might say that a concept can be distinguished within, but not separated from, the complex in which it occurs. (Frege 1960: 13)

In 1919, towards the end of his life, he expressed himself in remarkably similar terms:

So I do not begin with concepts and put them together to form a thought or judgement; I come by the parts of a thought by analyzing the thought. This marks off my concept-script from the similar inventions of Leibniz and his successors, despite what the name suggests. (Frege 1979b: 253)

My claim is that in the 3.31s Wittgenstein is putting forward an account of the relationship between propositions and expressions along the lines of the priority principle.¹⁵ The main difference between

¹³ See (Conant 2002: 384-85). For the idea that, according to Frege, function symbols indicate common features of various sentences, see (Dummett 1973: 31). See also (Linsky 1992: 268-69).

¹⁴ See also (Sluga 1975), for the historical context from which Frege’s commitment to the priority principle arose.

¹⁵ The Fregean lineage of the ideas put forward in the 3.31s is clearly flagged by their position as the first set of sections dependent in the numerical hierarchy on Wittgenstein’s formulation of Frege’s context principle:

3.3 Only propositions have sense; only in the nexus of a proposition does a name have meaning.

Frege's and Wittgenstein's views on this point is that Frege restricts this treatment to *concepts*, whereas Wittgenstein extends it to all expressions.¹⁶

This aspect of Wittgenstein's position explains his rejection of the need for a non-constituent to underwrite the combination of constituents to form propositions. Wittgenstein is not suggesting that the combination can be effected without outside help. The reason why no outside help is needed to produce the combination is that no combination needs to take place. The unity of a proposition is non-derivative, fundamental. It doesn't arise from a process of composition.

The attribution of this view to Wittgenstein receives further support from a passage that might seem to make the opposite point:

3.318 Like Frege and Russell I construe a proposition as a function of the expressions contained in it.

It might seem that Wittgenstein is arguing here that the expressions are primary and the propositions are the result of doing something with the expressions.¹⁷ To read the passage in this way, we need to assume that the application of a function to its arguments produces its values. However, there is every reason to think that Wittgenstein was assuming the converse relationship between functions and values—that the values need to exist before a function can pair its arguments with them. If this is the conception that Wittgenstein is presupposing, then the apparent tension between 3.318 and the rest of the 3.31s will disappear. Furthermore, this conception is emphatically endorsed by Russell and Whitehead in the Introduction to *Principia Mathematica*:

" ϕx " only has a well-defined meaning [...] if the objects ϕa , ϕb , ϕc , etc., are well-defined. That is to say, a function is not a well-defined function unless all its values are already well-defined. [...] the function cannot be definite until its values are definite. (Whitehead and Russell 1910: 41-42)

And again:

[...] the values of a function are presupposed by the function, not vice versa. It is sufficiently obvious, in any particular case, that a value of a function does not presuppose the function. Thus for example the proposition "Socrates is human" can be perfectly apprehended without regarding it as a value of the function "x is human". (Whitehead and Russell 1910: 42)

On this account of the relationship between functions and their values, to "construe a proposition as a function of the expressions contained in it" is to reject the idea that expressions play any role in the constitution of propositions. The proposition will have to exist before a function pairs it with the expressions.

Notice, however, that, as Michael Dummett has pointed out, one problem with treating the context principle as the linguistic correlate of the priority principle is that the former applies to all words, whereas the latter, for Frege, applies only to concepts (Dummett 1981: 539-40).

¹⁶ The Fregean source of Wittgenstein's idea has been defended by David MacCarty (McCarty 1991: 70). On the thought that Wittgenstein extends to all expressions the treatment that Frege accorded to concepts, see (Ramsey 1990: 11).

¹⁷ Anthony Palmer has criticized this reading. See (Palmer 1988: 52).

So far in this section I have argued that Wittgenstein's construal of the facts that play the role of propositions differs dramatically from the construal of complexes that Russell endorsed. A proposition, for Wittgenstein, is not a composite item arising from the combination of its constituents. The unity of a proposition is fundamental, not the result of a process of composition. Hence what we think of as the constituents of a proposition are not related to it as components to compound. They are instead features that the proposition has in common with other propositions.

What I want to argue next is that Wittgenstein applies this approach, not only to propositions, but to all facts. Every fact, not only those that serve as propositions, is a fundamental, indivisible unit. A fact is not produced by the combination of objects. Objects are not components of facts—they are 'common characteristic marks' of classes of facts. This is the view advanced in the opening sections of the *Tractatus*.¹⁸

The idea that facts, and not objects, are the fundamental ontological units of the *Tractatus* could not be more prominently displayed. It is expressed by the very first two sections of the book:

1. The world is all that is the case.
- 1.1 The world is the totality of facts, not of things.

These sections have often been interpreted as asserting that the world consists, not only of things, but *also* of facts—that a complete catalogue of the ultimate furniture of the world must include facts as well as things.¹⁹ I am arguing that this reading is incorrect. Wittgenstein is claiming that the catalogue of the ultimate furniture of the world contains nothing but facts—it contains facts and not things. Facts are the only ultimate items of Tractarian ontology. Everything else has to be construed out of them.

Now this assertion needs to be qualified in order to take account of how facts are construed in the *Tractatus*. When the term *fact* (*Tatsache*) is introduced in the 1s, it is used as a non-technical term to refer to what is the case—what actually obtains in the world. And with a few exceptions, that's how the term continues to be used throughout the book. But at the beginning of the 2s we get an account of what facts (what is the case) consist in:

2. What is the case—a fact—is the existence of states of affairs.
- 2.01 A state of affairs (a state of things) is a combination of objects (things).

It is a controversial point of *Tractatus* exegesis whether states of affairs (*Sachverhalte*)²⁰ should be taken to include all possible combinations of objects or only the actual ones.²¹ Both readings are defensible, but on balance it seems more plausible to take the term to encompass all possible combinations of objects. A powerful consideration in favour of this reading comes from

¹⁸ Brian Skyrms has given expression to this reading: "Wittgenstein's truly daring idea was that the ontology of the subject (nominalism) and the ontology of the predicate (Platonism) were both equally wrong and one-sided; and that they should give way to the ontology of the assertion. We may conceive of the world not as a world of individuals or as a world of properties and relations, but as a world of facts—with individuals and relations being equally abstractions from the facts. John would be an abstraction from all facts-about-john; Red an abstraction from being-red-facts; etc." (Skyrms 1981: 199).

¹⁹ For an eloquent attack on this reading, see (Johnston 2007).

²⁰ 'State of affairs' is Pears and McGuinness's translation of 'Sachverhalt'. Ogden rendered it as 'atomic fact' (Wittgenstein 1922).

²¹ See, e.g., (Black 1964: 39-45).

Wittgenstein's claim (TLP 4.21) that an elementary proposition asserts the existence of a state of affairs. If all states of affairs were actually obtaining combinations of objects, it would follow that all elementary propositions are true. In any case here I will take the term *state of affairs* to include all possible combinations of objects.

There is also some controversy concerning how facts are connected to states of affairs, but we can make a substantial case in favour of the view that a fact is any obtaining truth-functional combination of states of affairs. The connection is established once more through propositions. As we've seen, an elementary proposition asserts the existence of a state of affairs. We are also told (TLP 5) that a proposition is a truth-function of elementary propositions. If we assume that a fact is what a true proposition asserts, we can conclude that a fact is an obtaining truth-functional combination of states of affairs, and this is how I propose to use the term.

I've claimed that facts are the ultimate units of Tractarian metaphysics, and we've just seen that facts are obtaining truth-functional combinations of states of affairs. Clearly, the states of affairs that combine truth-functionally to form facts include non-obtaining as well as obtaining states of affairs. Thus, to take the simplest case, if S is a non-obtaining state of affairs, the negation of S is a fact. This might seem to suggest that, in treating facts as fundamental, Wittgenstein is ascribing this status to all states of affairs, obtaining and non-obtaining alike. I think, however, that this reading would be a serious distortion of Wittgenstein's views. It would amount, in effect, to ascribing to Wittgenstein an ontology of Russellian propositions, as they figure in the dual-relation theory, or Meinongian *Objektive*.²² Wittgenstein's thought that what is the case is fundamental, translated to the language of states of affairs, is the claim that *obtaining* states of affairs are fundamental. They inherit from facts the status of ultimate constituents of reality.

On this approach, objects are not self-standing items from whose combination states of affairs arise. They are, instead, features that states of affairs share with one another. Obtaining states of affairs are indivisible units. Relations of resemblance between states of affairs constitute the reality that underlies our talk of the objects of which states of affairs are composed.²³ Notice that the view is stronger than the claim that objects cannot occur in independence of states of affairs. I am attributing to Wittgenstein an account of the ontological status of objects from which this dependence follows as a corollary.

The account of facts that I'm attributing to Wittgenstein is remarkably similar to the account that appears in Waismann's *Theses*, in which he aimed to present Wittgenstein's views. After explaining that some facts can have parts that are also facts, and, as a result, two facts can have a fact in common, he adds:

Two facts can, however, also agree in a different way, e.g. The fact 'This patch is yellow' and the fact 'That patch is yellow.' The two facts have the colour yellow in

²² See, in this connection (Goldfarb 1997: 65): "Wittgenstein does not countenance possibilities in his ontology. For this would make the obtaining of the state of affairs a property of the combination of objects, whereas Wittgenstein is explicit that the combining of objects *is* the obtaining of the state of affairs".

²³ David McCarty has endorsed the general idea of the reading I'm developing here: "In *Tractatus*, the proprietary relation between *Tatsache* and *Gegenstand* is not one of construction but, rather, of abstraction. [...] Hence, Tractarian objects are not starting points, but endpoints in a process of analysis [...]" (McCarty 1991: 59). McCarty thinks that this construal of Tractarian objects forces us to adopt an idealist reading of the relationship between the structure of language and the structure of the world. I don't think the connection is so straightforward. Further argument is needed to show that this construal of Tractarian objects is not compatible with a realist interpretation of the book.

common, which does not by itself constitute a fact. Yellow is a feature of facts, but not an independent one. (Waismann 1979: 233)

Here, what is usually regarded as a constituent of the two facts is described as a feature of them, which, furthermore, is not independent. The lack of independent standing of common features of facts is emphasized in the continuation of the passage:

It is possible to analyse a state of affairs by specifying the features in respect of which it agrees with other states of affairs. This analysis can be performed only in thought, not in reality. Every feature appearing in a state of affairs is also called an *element* (member, part) of the state of affairs. (Waismann 1979: 234)

We may call them *members* or *parts*, but this shouldn't be understood as treating facts as compounds of independently existing constituents. Their members or parts are only common features of facts that we identify in thought, not in reality. Needless to say, we cannot take for granted that Waismann's account in the 1930s provides a faithful characterisation of Wittgenstein's views in 1918, but it has to be accorded some evidential weight.

It is also interesting to notice that a view along the lines of the position I am attributing to Wittgenstein is discussed and rejected in Russell's *Theory of Knowledge* manuscript.²⁴ The view is presented in Chapter VII of Part I, where Russell is arguing that understanding 'the name of a relation', e.g., the word 'before', requires acquaintance with the universal it stands for. After presenting this view, Russell considers the following alternative:

[...] that we need only be acquainted with similarities between complexes which contain the same relation, and need not be acquainted ever with the bare relation itself. (Russell 1984: 82)

I want to suggest that these 'similarities between complexes' are very close to the 'common characteristic marks' of propositions to which Wittgenstein refers as *expressions*. Russell's discussion of the idea is restricted in the first instance to the similarity between complexes that share their relating relation, e.g., between "A-before-B" and "C-before-D", but he later considers other possible similarities between dual complexes:

Two dual complexes may have their first terms identical, or their second, or both. We have thus three ways in which two dual complexes may resemble each other without involving the same relation. (Russell 1984: 82-83)

And he envisages the possibility of applying the same model in these cases. The passage continues:

The third of these ways is the combination of the other two, and need not therefore be further considered; but the other two, we may suppose, can each be experienced in cases where the identical constituents involved are not experienced. For example, we may suppose that two experiences can be seen to have a certain resemblance which in fact consists in their having the same subject, even if the subject itself is not given in acquaintance. (I am not asserting that this *is* the case, but only that it may be.) (Russell 1984: 83)

²⁴ It is also considered briefly in *The Philosophy of Logical Atomism* (Russell 1985: 68-70).

Focusing again on the similarity between dual complexes with the same relating relation, Russell goes on to formulate the view in the following terms:

We assume, now, that between the complexes (AB), (CD), we perceive a certain similarity, which does not depend upon any identity of terms, and is found to subsist between *some* dual complexes, but not between others. We can then *define* the relation of all these complexes as the class of them. In other words, given a certain complex whose terms are A and B, and to which we give the name "A-before-B", the complex "C-before-D" will be defined as "the complex of which C and D are the terms, and which has relation-similarity to A-before-B". (Russell 1984: 84)

My claim is that Wittgenstein would be happy to subscribe to this model as an account of the expression *x is before y*.

5. Conclusion

We can combine the ideas deployed by Wittgenstein to deal with the problems of unity to sketch an account of our intentional interaction with the world.

The world consists of facts, of actually obtaining facts. Thanks to our faculty of grasping what is shown to us, we can bring these facts to consciousness. Exercising the same faculty enables us to discern similarities between the facts that we grasp. Some of these similarities involve content as well as form, as between the fact that Pavarotti sings and the fact that Pavarotti eats, or between the fact that Pavarotti sings and the fact that Callas sings. These similarities are the metaphysical reality underlying our talk of fact constituents, e.g., of the individual Pavarotti or of the property of Singing. Other similarities are purely formal, as between the fact that Pavarotti eats and the fact that Callas sings. These underlie our talk of logical forms, e.g. Monadic Instantiation.

We represent things as being a certain way by singling out an actually obtaining fact (our picture) and pairing its constituents with items that we have encountered as constituents of other facts, even if we haven't encountered a fact in which they are combined with one another. Suppose for example that we grasp the fact that Messi dribbles. We discern similarities between this fact, on the one hand, and the fact that Messi tackles and the fact that Ronaldo dribbles, on the other. Grasping these similarities brings to consciousness the individual Messi, and the property of Dribbling as constituents of the fact that Messi dribbles. We also discern similarities between the fact that Messi dribbles and, e.g., the fact that Ronaldo tackles, thereby grasping the way in which Messi and the property of Dribbling are combined with one another in the fact that Messi dribbles. We can then assign to the constituents of this fact as their referents constituents of other facts. Thus, e.g., we can pair the individual Messi with what the facts that Pavarotti sings and that Pavarotti eats have in common, and the property of Dribbling with what the facts that Dr Dre raps and that Jay Z raps have in common. In this way, we make the fact that Messi dribbles represent Pavarotti as rapping—we represent the individual Pavarotti and the property of Rapping as combined with one another in the same way in which the individual Messi and the property of Dribbling are actually combined with one another in the fact that Messi dribbles. If we replace the fact that Messi dribbles with the fact that the word "Pavarotti" has the property of standing to the left of the word "raps", we obtain a linguistic instance of pictorial representation.

I am not claiming that Wittgenstein unambiguously endorsed a position along these lines, even at the ladder-climbing stage of his project. But the position is based on ideas that are present in the *Tractatus*. It is also an appealing position, deserving further scrutiny.

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