The So-called Picture Theory
Language and the World in
Tractatus Logico-Philosophicus

Hidé Ishiguro

1 Preamble: The Influence of Frege and Russell

Wittgenstein's *Tractatus-Logico Philosophicus*, written while he was in his twenties, was his first philosophical work and the only book of his that was published during his lifetime. The author tells us in the preface that 'the aim of the book is to set a limit to thought, or rather not to thought but to the expression of thoughts'. We cannot set a limit to thought as such, because in order to do so we should have to think on both sides of the limit. That is to say, we should have to think what cannot be thought, and this is absurd. Nevertheless we can set out the rules of what is sayable in our language so that the limit of what can be said can be made explicit. Wittgenstein points out that what lies on the other side of the limit will simply be nonsense, for we have no language to think about it. The preface also acknowledges his indebtedness to 'Frege's great works and to the writings of my friend Mr Bertrand Russell'.

The different ways in which he describes the two suggests that at this juncture he assesses Frege's works more highly than those of Russell (though we will see that he had taken Russell's theory of descriptions very seriously), and we can see the effect of this in the different degrees of influence of the two thinkers in the *Tractatus*.

One can say that throughout his philosophical thinking and in all of his philosophical works Wittgenstein was deeply concerned with how language or the expression of thoughts determines, moulds or limits our thoughts and our experiences as well as the facts and objects that we find in the world. That the world is something in which we find ourselves, not something whose existence we construct or infer was always accepted by Wittgenstein. (Can any one of us seriously refuse to do so?) How then are our thoughts and language linked to the world? The *Tractatus* implies that propositions reach out to reality. The word *Satz*, which is here translated as 'proposition', means a sentence taken as having a definite sense, or as expressing a definite thought – what logicians often refer to as 'interpreted sentences'. A proposition is a picture of reality as we think it (TLP 4.01/WR 11) and a picture is attached to reality by reaching right up to it (TLP 2.1511/WR 5). The word 'picture' here is how the original German word *Bild* is usually translated. I will explain later why this is misleading in the case of the *Tractatus*.

We must, however, pause and think what kind of attachment we could be looking for. We can tell the difference between a boat floating loose in a lake and a boat attached to a quay. The attachment or link between language and facts in the world could not be like the link between two things in the world. A word as a universal cannot be physically linked to things. We are reminded of the sharp questions put by Princess Elizabeth to Descartes, when she asked how the immaterial, unextended soul could, in his theory, move the body, and what would count as the soul determining the animal spirits or anything in the body. Similarly we must also ask ourselves what kind of feature we are looking for when we ask how words are linked to the world.

It is very important to keep in mind three things when we read the *Tractatus*. First of all, the Wittgenstein of the *Tractatus*, unlike Russell or many other philosophers working at the time, is not engaged in the investigation of perception or mental experiences, let alone of their relation to the world. We will see this in more detail in section 5 below. Here let us remind ourselves what a low view of the role of epistemology and the investigation of experience is expressed in the *Tractatus*. For example, it is claimed that psychology is no more closely related to philosophy than any other natural science, and that epistemology is the philosophy of psychology (TLP 4.1121). Wittgenstein makes the surprising claim that 'The thinking presenting subject; there is no such thing' (TLP 5.631/WR 25), a claim that we will try to clarify later. The *Tractatus* is very different from many of the philosophical schools that arose not too long before or after, which in one way or another begin with the given of experience (such as the sense-data theories of Russell and Moore, the positivism of the Vienna Circle, or even Husserlian phenomenology). It is different precisely because it assigns such an unimportant role to experiences. The problem in the *Tractatus* was rather one of inferring the basis, and setting the limit of our thinking, by understanding the logical structure of the language that we
actually have. 'The “experience” that we need to understand logic is not that such and such is the case, but that something is, but that is no experience' (TLP 5.552/WR 15).

The second important point to keep in mind is that Wittgenstein is not talking about an ideal language, or a special language that is restricted, say, to the description of direct experience. It has long been repeated that the *Tractatus* is about an ideal language and that the later Wittgenstein, by contrast, shifted to ordinary language. We know that Wittgenstein was very disappointed by the preface kindly written by Russell at the request of the publishers, and that Wittgenstein attempted to have the book published without the preface. This was because Russell wrote that the part of the *Tractatus* dealing with symbolism is about the ‘conditions that have to be fulfilled by a logically perfect language’, which Wittgenstein thought was a complete misunderstanding. As 5.5563 says: ‘in fact, all the propositions of our everyday language, just as they stand are in perfect logical order’. What the *Tractatus* says about language, symbols and the world purports to be about our language as it is.

Our language, however, does not always show its logical structure on the surface. Sentences which appear to be simple may often be logically complex. The *Tractatus* assumes that we should be able to get to the logically simple, ‘elementary’ propositions by analysis. This view, which we, following Russell, may call logical atomism, does not, in Wittgenstein’s case, identify what is logically simple with what is prior in experience. Russell’s logical atoms were propositions about objects that we are acquainted with. In the *Tractatus*, however, there is no theory of acquaintance, as we will argue later in section 5.

The third important point we must keep in mind in reading the *Tractatus* is that key expressions like ‘object’, ‘function’, ‘concept’, ‘sense’ (*Sinn*), ‘meaning’ (*Bedeutung*) are used in the very special way Frege defined them, even though Wittgenstein has different theories about their application, as we will see later. Frege is well known for initiating a logic which expresses propositions as function and argument. Predicates are treated as propositional functions. A concept is what predicates ascribe to objects: it is not something in our mind, but what predicates refer to. In the *Tractatus* too, the expressions ‘object’, ‘function’ and ‘concept’ introduce logical or grammatical categories, not kinds of things. The expression ‘objects’ refers to arguments of propositional functions, which are in fact subjects of propositions. And the expression ‘concept’ refers to the state of affairs ascribed to the subject or subjects in the proposition. As in Frege, a ‘concept’ is regarded as a kind of propositional function.

There is, however, a difference. A concept for Frege is a function whose value is a truth-value, that is, the True or the False, which are abstract objects. For Wittgenstein a propositional function is a function whose value is a proposition. This difference comes about because Wittgenstein did not think, as Frege did, that a proposition is a name of a truth-value (see TLP 3.221/WR 8, TLP 3.1431, 4.431, 5.02). In the *Tractatus* a first-order propositional function has names as arguments and a proposition as its value.

In a long and interesting passage (TLP 4.126, unfortunately left out in WR), Wittgenstein calls these logical or grammatical categories ‘formal concepts’. The fact that he adopts Frege’s logical categories and their corresponding symbolism is made clear in TLP 4.24/WR 15. There he writes: ‘The elementary propositions I write as function of the names, in the form “fx” “Φ(x,y)”, etc.’ He had already made it clear in 4.1272 that ‘Wherever the word “object” is correctly used, it is expressed in conceptual notation by a variable name’. Later in *Philosophical Grammar*, when he critically looks back at his former ideas and those of Frege and Russell, he writes ‘Frege’s “Concept and Object” is the same as subject and predicate’ (PG Apd. 2/WR 38). Here we can see that to ask what kind of entities “objects” are is as misguided as asking what kind of entities “subjects” are. Anything we can think about or talk about can be the subject of a proposition. It is the subjects of elementary propositions, that is, what the elementary propositions are about, that are the objects of the *Tractatus*.

People may protest that this interpretation of the notion of objects in the *Tractatus* is minimalist, and that it does not cohere with the many seemingly metaphysical claims Wittgenstein makes. For example, he writes that objects are ‘simple’ (TLP 2.02/WR 3), that ‘objects form the substance of the world’ (TLP 2.021/WR 4) and that they are fixed and existent (TLP 2.027). It seems clear, however, that these adjectives do not express Parmenidean properties which characterize ‘beings’ and which we could describe in propositions. After explaining that being an object or being a function or being a proposition is a formal concept, TLP 4.126 says that when something falls under a formal concept, this cannot be expressed by a proposition. It is shown by the (conventional) use of certain (types of) signs, for example by using ‘fx’, ‘gx’, ‘hx’, etc., for functions in which x is the variable for names, and ‘p’, ‘q’, ‘r’ for propositions. So much confusion is generated, he laments, because we confuse formal concepts with concepts proper (which we express by using particular function signs or expressions, e.g. ‘x is blue’, ‘x is a person’, etc.). Such expressions tell us what kinds of objects we are talking about, not that they are objects. We know that anyone who, unlike Wittgenstein, allows himself to use a meta-language, will express such formal matters in a meta-language.

It is therefore misleading for Wittgenstein to have used normal adjectives like ‘simple’, ‘existent’ and ‘fixed’ earlier on in the *Tractatus* to characterize things falling under the logical category of object. These are adjectives that normally express features of some objects to distinguish them from other objects. We distinguish a simple heart from a complicated one, an
existential law from an abolished one, a chair fixed on the floor from a loose one. It is clear that in speaking of 'simple', 'existent' and 'fixed' Wittgenstein was not ascribing these as empirical properties to all objects. Objects are the referents of simple names, names that cannot be replaced by definite descriptions; they are fixed referents of names. The use of names has existential import, i.e. names designate things that exist. Tractatus 4.126 says somewhat mysteriously that the name shows that it signifies an object. What this presumably means is that when the role of the name is grasped, then we grasp it as simply designating an object (since if it does not designate an object, it does not play the role of a name).

It is ironical that Wittgenstein tells us not to confuse formal properties and formal relations (which are shown in the use of any signs) with properties and relations proper (which are expressed by specific one-place and multi-placed function signs); and yet he himself, in his attempt to express formal properties, uses expressions that could be taken as ascribing real properties. That is why he had to acknowledge the confusion he had caused, and to write later in PI §40 that one should not confuse the 'meaning' or reference (Bedeutung) of a name with the bearer (Träger) of the name. I take this as correcting what he said in the Tractatus on the fixedness of objects. When the sword Excalibur is broken, the meaning of reference of the name 'Excalibur' is neither broken nor ceases to exist. The name still refers to Excalibur, i.e. it means Excalibur, the sword owned by King Arthur. The object it refers to, the reference of the name, is fixed, because the semantic property of the name is fixed. The object itself, the bearer of the name which is the particular sword, is neither fixed nor unchanging. The Tractatus (2.027/WR. 4) was misleading, as it gave the impression that objects themselves were fixed.

Readers may still wonder how the Tractatus's claim that objects form the substance of the world could be one about formal or logical properties. It must be obvious, however, that Wittgenstein was not advancing a theory about any supposed constituents of nature such as atoms, quarks, or even monads. Having begun his university education in engineering and physics, he would not have wanted to make amateur scientific theories and believe them to be philosophy. Wittgenstein asserts that the world is the totality of facts, not of things (TLP 1.1/WR. 2). I hope to show in this essay that the real Tractatus view is that we start with thoughts, i.e. propositions of facts, and realize that these are complex, that their truth or falsity depends on the truth or falsity of other simpler facts. Even when we cannot get to the simplest propositions, we assume that there must be propositions whose truth or falsity does not depend on any other propositions. There is no reason to think that these logically simple propositions are all about the same kind of things, but whatever these propositions are about, these are called objects. In that sense, objects form the facts which constitute our world. This is a claim about the formal or logical status of objects as well as about their relationship to any facts in the world.

Let us get back to the influence of Frege's terminology on Wittgenstein. The words Sinn ('sense') and Bedeutung ('meaning'), which in ordinary usage in both German and English can be used interchangeably, were given clearly distinct uses by Frege in a relatively late article in 1892. He argues from his well-known example that the expressions 'morning star' and 'evening star' have different Sense (senses) but the same Bedeutung (meaning); they mean (or refer to) one and the same planet. Many claims in the Tractatus cannot be understood if we do not take Wittgenstein to be using the two expressions in the same distinct ways. For example, he writes that 'Only the proposition has sense' (TLP 3.3/WR. 9), and denies that individual words, whether they be names or predicate expressions, have sense. He also clearly states that 'The name means the object. The object is its meaning' (TLP 3.203/WR. 8). That is to say, the object is what it refers to. Obviously then, as in Frege, the words Sinn ('sense') and Bedeutung ('meaning') are used in the Tractatus to mean different things.

However, Wittgenstein disagrees with Frege who claimed that names, predicates and propositions could all have both sense and meaning. The Tractatus denies sense to anything smaller than a proposition. The constituent words contribute to the sense of propositions. The sense of a proposition is the state of affairs that it represents (TLP 4.031/WR. 13). Wittgenstein believes that propositions have no meanings (Bedeutungen) or references, and that Frege's theory that propositions have truth-values as meanings and are names of truth-values is based on a confusion (TLP 5.02). Wittgenstein expresses his disagreement with Frege all the more clearly by using Sinn and Bedeutung to express the same kinds of things that Frege does.

2 Picturing or Representing

We can understand the sense of a sentence in terms of other sentences, by understanding how the truth of that sentence is related to the truth of other sentences. But we cannot go on forever referring ourselves to other sentences. The Tractatus supposes that in order for sentences to have definite sense, there must be simple sentences which can be understood on their own. How then should we understand what these simplest sentences say? And how do they relate to the world? The Tractatus view of the way in which the relationship between language and the world is established in the case of elementary propositions (the simplest unit of sense or thought) is often referred to as the picture theory of (elementary) propositions. This is based on the following passages:
are no other kinds of propositions. This means that, whenever there are logical relations between propositions, these are truth-functional ones. The *Tractatus* also says that when this is so, e.g., when $p$ follows from $q$, the sense of "$p" is contained in the sense of "$q". Therefore, when we want to explain the relationship between language, thought and the world, we need to do it at the level of elementary propositions. Once we do this, everything else follows.

How does one know that a proposition is elementary? It is easy to see that a proposition is not elementary when it contains truth-functional operators such as 'and', 'or', 'not', 'if...then...', whether each of these operations is expressed by separate signs, as illustrated in the *Tractatus* 5.101, or by a repeated application of a Sheffer stroke, as explained in TLP 6/WR 25, or when the proposition contains quantifiers. Quantified propositions should, according to Wittgenstein, be thought of as logical products (i.e. conjunctions of propositions) or logical sums (i.e. disjunctions of propositions). As Frege and Russell claimed, they can be rewritten as propositions containing truth-functional operators.

But there are sentences which, at least prima facie, contain neither signs for truth-functional operators nor quantifiers, but which nevertheless do not express elementary propositions. Wittgenstein was strongly influenced by Russell’s theory of descriptions. Russell, unlike Frege, did not think that definite descriptions could play the role of proper names. For Frege, in a sentence like ‘The greatest number is an even number’, the definite description ‘the greatest number’ plays the role of a proper name: it is the subject of the proposition – the argument of a predicative function. As there is no greatest number, one should say, in Frege’s semantics for natural language, that the name has sense but has no reference, and hence the sentence as a whole has sense and expresses a thought, but lacks meaning or reference, i.e. has no truth-value. (Frege showed in his *Basic Laws of Arithmetic* that in a formal language like mathematics, where it would be inconvenient to have signs without reference, one could give a name an artificial reference – e.g. the null class – when nothing corresponds to it, so that the sentence as a whole would turn out false.)

For Russell and Wittgenstein, however, ‘the greatest number’ in this sentence does not play the role of a logically proper name. It does not designate an object that satisfies the propositional function ‘is an even number’. It fails to be an argument of the function. The proposition should rather be taken as saying that there is one and only one number that is greater than any other, and that that number is even. Since there is no such number, the proposition is simply false. ‘A proposition in which there is mention of a complex, if this does not exist, becomes not nonsense but simply false’ (TLP 3.24/WR 9).
Concerning complex names then, the *Tractatus* follows Russell rather than Frege. They are not, logically speaking, names. 'Every statement about complexes can be analysed into a statement about their constituent parts, and into those propositions which completely describe the complexes' (TLP 2.0201/WR 3). Moreover, as Russell pointed out, the logic of descriptions is quite different from the logic of names. For the Frege of 'on Sense and Meaning', a sentence containing a name like ‘The Planet Vulcan’ which has sense but no meaning is neither true nor false. By contrast, for Russell and the *Tractatus* a sentence containing a definite description to which no unique thing corresponds is simply false, as we just saw in the case of the sentence containing the description 'the greatest number'. As Professor Anscombe wrote in her book on the *Tractatus*, such a sentence can be false in two different ways. Moreover, many apparent names are actually used as abbreviations for definite descriptions. Real names designate objects about which a proposition says something true or false. I have suggested that the arrangement of these names in the proposition maps the objects related to each other in the state of affairs, and that this is what is called 'Bild' or 'image'.

3 Singular Propositions and General Propositions

How would treating propositions referring to complex objects (constituting almost all of the things we find around us), as general quantified propositions rather than as singular propositions, affect our original problem concerning the link of words and the world?

Think of statements like ‘Wittgenstein was born in Vienna’ or ‘The river Seine runs through Paris’ on the one hand, and ‘The inventor of the modern theory of dynamics lived in a university town’ or ‘There is now only one military superpower in the world’ on the other. It has widely been thought that there is an important difference between the way singular statements relate to the world and the way general statements do. Is this true, however? Don’t the two general propositions above apply to a particular person and to a particular country in this world, namely to Isaac Newton and to the United States? Yet unlike singular propositions naming Wittgenstein or the Seine, these general propositions could have been true of another person and another state, and they would have sense even if there were nothing corresponding to them. This is why many have claimed that singular propositions are what establish the concrete link between language and the world.

Michael Dummett seems to interpret Frege in this way when he wrote that the realistic ingredient in Frege’s theory of reference (Bedeutung) comes from Frege’s acceptance of the name/bearer relation as the prototype for the relation of reference. Several philosophers have even associated this relation with some causal link between the object and the experience of the person on the occasion of introducing the name of the object (Hilary Putnam and Saul Kripke have applied such a causal theory of reference not only to names of individual objects but also to names of natural kinds).

As competent speakers of a language we assume, however, that we are often referring to items in reality when we talk about things for which we have no names, such as the sands on the beach or the stars in the Milky Way. Many philosophers have claimed that this is because, in principle, we can refer to these objects by demonstrative pronouns. Bertrand Russell thought that demonstrative pronouns like ‘this’ and ‘that’ referring to things that are objects of our direct attention about which we could not be mistaken (which in his case were sense data, as we will see) were, logically speaking, the only genuine names: what he called logically proper names. Peter Strawson and Ernst Tugendhat, who are talking not about objects in private experiences but things in public space–time, have nevertheless defended the importance of reference to particulars in the public world by our ability to locate things in a unique public space–time by pointing and using a demonstrative pronoun like ‘this’ to identify and reidentify it. If we succeed in pointing to an individual object in the world, surely, people may say, we must have linked the word ‘this’ to an item in the world.

Don’t singular propositions play the role of linking language and the world in the *Tractatus* as well, since Wittgenstein says that a proposition is a picture and that the representing relation which makes it a picture consists of the coordination of the elements of the picture and things (TLP 2.1514/WR 5)? He even says that these coordinations are ‘the feelers of its elements with which the picture touches reality’ (TLP 2.1515). Some people have taken this to indicate that there are separate distinct objects in reality which we single out by demonstrative pronouns, or which we name, and that we then observe their relations to one another, which enables us to describe the state of affairs.

Such an interpretation ignores two important assertions in the *Tractatus*. The first is unfortunately not in WR, but it is a very instructive passage. Wittgenstein writes:

We can describe the world completely by means of fully generalized propositions, i.e. without first correlating any name with a particular object. Then, in order to arrive at the customary mode of expression, we simply need to add, after an expression like ‘There is one and only one x such that . . .’ the words, ‘and this x is a’. (TLP 5.526)
By ‘the customary mode of expression’ Wittgenstein obviously means singular propositions with (apparent) names. Not only is he claiming that we can adequately describe and pick out objects in the world by general descriptions, he seems to be suggesting that our ordinary singular propositions do not play any irreplaceable role. Moreover, the expression ‘this x’ is here not used demonstratively, but anaphorically; namely to refer to an object that has been already picked out by verbal description. If this is so, it is difficult to see how it could ever be true that there are ‘Objects I can only name’ (TLP 3.221/WR 8). No wonder Wittgenstein does not give any examples in the *Tractatus* of simple objects which can only be named and not described (TLP 3.26, 3.221/WR 8), nor any concrete sample of his ‘completely analysed propositions’.

The second passage that raises difficulties for the view that singular propositions establish the link between words and the world can be found in the second half of TLP 3.3/WR 8. It states: ‘only in the context of a proposition has a name meaning’. Here, Wittgenstein almost literally repeats Frege’s remark made twice in his *Foundations of Arithmetic* (§§60–2). This controversial claim is often referred to as ‘the context principle’ and has been much discussed. Since neither Frege nor Wittgenstein could be denying that there is an established usage of names outside of propositions (e.g. when we call after a person or curse someone or use numerals in order to count), what the claim asserts must be that the link established between name and object comes about through what is said by the proposition in which the name occurs.

This role of the name indicates what kind of thing the object named is. We understand the kind of objects that are named only by understanding the kind of state of affairs described in propositions in which the name occurs. This means that, if singular propositions constitute the connection between language and the world, it will be through the priority of the link between the proposition as a whole and the state of affairs it represents, rather than through the priority of the name/bearer relationship which Dummett ascribed to Frege.

The notion that thinking must begin with thoughts about particular objects has a long history. As in Locke’s theory of general abstract ideas, we tend to think that it is by grouping particular objects together or by abstracting from their features that we obtain any notion of generality at all. Tarskian truth-functions in modern logic, in which we first define truth for singular propositions and then define the truth of molecular and general propositions recursively on their basis, have encouraged this attitude. If, as we saw in the previous section, the *Tractatus* follows Frege and Russell in expressing general propositions as quantified propositions of the form ‘(∃x)fx’ or ‘(∃x)fx’, and if these in turn are taken to be truth-functions of elementary propositions, doesn’t Wittgenstein also think that we have to start with elementary

propositions and only acquire the notions of generality after we learn to quantify over them?

Wittgenstein insists, however, that it is not the quantifiers that bring in the notion of generality. Understanding what a function is, or what a predicate is, already involves generality. Wittgenstein criticizes Frege and Russell for not making this clear (TLP 5.521/WR 23). Let us consider some examples in order to see what he might be driving at. Before we make claims like ‘All humans are mortal’ or ‘There are some blue objects’ we need the notion of generality already to pick out an individual as a human being or as something blue, and also to think of things as being mortal. Before the variable is bound by a quantifier, generality is already present with the variable x in the sign for a function ‘fx’ (TLP 5.522/WR 23). It indicates the domain of the function and hence implies generality. A propositional sign like ‘(∃x)fx’, with an existential quantifier, therefore expresses both the idea of generality and that of logical sum. We should not think that generality comes from the notion of logical sum or of logical product. Neither should we think that the learning of elementary propositions is always prior, or that language begins by giving names to objects.

4 Denial of Reductionism

We have seen that the main tenet of the logical atomism of the *Tractatus* is that all propositions are truth-functions of elementary propositions (TLP 5/WR 5), i.e. that the truth or falsity of all propositions stand in some logical relation to the truth or falsity of simple singular propositions which can be attained through logical analysis. In addition, since to understand a proposition is to understand what will be the case if the proposition is true (i.e. the truth-condition of the proposition), the sense of complex propositions also depends on the sense of these simple elementary propositions. The sense of a truth-function of p is a function of the sense of p (TLP 5.2341). We should not, however, think that this leads to a reductionism. It does not lead to the view that all elementary propositions are about the same kind of things. We should not ask whether all objects of the *Tractatus* are space-time points, whether they are material things or sense-data. We have already seen that ‘objects’, ‘propositions’ or ‘concepts’ are all formal concepts which correspond to logical categories. We have also seen that Wittgenstein is making claims about our language in general, not about a special, ideal language. Just as our complex propositions are about various kinds of things, the elementary propositions of which they are assumed to be truth-functions should naturally be about various kinds of things. ‘Objects contain the possibility of all states of affairs’ (TLP
fact-stating language. But surely there are facts about or involving our historically chosen conventions and customs?

We do not, however, have to agree with Wittgenstein about what kinds of facts the world is made of in order to agree with him that propositions of natural science are not about facts that we are directly acquainted with, nor constituted by such facts. They are, Wittgenstein reminds us, cast in certain unified forms which we construct and choose. We see facts in nature as subject to natural laws (TLP 3.4, 3.6/WR. 11). Even the simplest facts in nature are seen in the form in which the natural law is cast. Wittgenstein confesses: 'In the terminology of Hertz we might say: only uniform connections are thinkable' (TLP 6.361/WR 28). Newtonian mechanics is one such form, but the form is optional (TLP 6.341).

5 Acquaintance

When Bertrand Russell delivered his lectures on 'The Philosophy of Logical Atomism' in 1918 (probably just as Wittgenstein was finishing the Tractatus as an Austrian officer in the war), he said that the lectures were very largely concerned with explaining certain ideas that he got from his former pupil Wittgenstein, whose views he had had no opportunity to know since 1914 (when the war began), and of whom he did not know whether he was alive or dead.

The logical atoms of Russell's philosophy were propositions about sense-data, objects with which we were said to be acquainted and of which we were supposed to have direct knowledge. Yet we will see that there are fundamental differences between the logical atomism of the Tractatus and that of Russell's lectures.

At the beginning of the Philosophical Remarks (1930), which Wittgenstein wrote soon after his return to philosophy after almost ten years, he claims that he no longer thinks, as he used to do, that his goal was to get to a 'phenomenological language', or what he used to call a 'primary language'. Some influential commentators have taken this as referring to his aim in the Tractatus, and, in addition, have understood it as referring to a phenomenalistic language, a language about sense-data. Notice, however, that Philosophical Remarks does not talk about a phenomenalistic language but about a phenomenological language. Moreover, it explains that phenomenology is the grammar of the description of those facts on which physics builds its theories. The description must then be that of things that move and accelerate, things that have mass, or things that have colour, sounds that are emitted, and so on. He also gives the study of harmony (Harmonielehre) as one example of a discipline that is a phenomenology. Like Husserl, he says that phenomenology seeks what is
essential in objects that are thought or represented, and does not consider them psychologically.

It is true that in connection with phenomenology Wittgenstein refers to Mach by name. But even here Wittgenstein suggests that it is mistaken to regard Mach as a pure empiricist investigating the facts of experience. He points out that Mach’s ‘thought experiment’ is not an experiment at all, but a grammatical reflection (PR §1, referring to Mach’s *Erkenntnis und Irrtum* of 1906).

Wittgenstein never uses the word gegeben (‘given’) to mean sense-data in the *Tractatus*, but uses it to express conceptual possibilities and links; for example, he says that if all objects are given then at the same time all possible states of affairs are also given (2.0214); that the whole of logical space must be given with a proposition (3.42); or that if objects are given then, at the same time, we are given all objects (5.524/WR 5.524). Such claims would be nonsense if we were to understand the given as something we are immediately aware of, or anything like Moore or Russell’s sense-data, or even objects of phenomenological reflection.

Russell gave sense-data as examples of ‘particulars’, that is, of objects that atomic propositions are about. He explains: ‘such things as little patches of colour or sounds: momentary things’. The *Tractatus* not only gives no concrete examples of simple objects or of elementary propositions; they are, on the contrary, postulated as something we would reach by complete logical analysis, when we get to propositions that are not the product of other propositions by truth-functions. He wrote in his *Notebooks* of 24 May 1915, when he was probably already writing the *Tractatus*: ‘Even though we have no acquaintance with simple objects we *do* know complex objects by acquaintance, we know by acquaintance that they are complex. And that in the end they must consist of simple things’. He had already written in his notebook the day before that we do not infer the existence of simple objects by coming across the existence of particular ones, but rather infer their existence ‘as an end-product of analysis’.

He explains later in *Philosophical Grammar* that when he talked of such complete logical analysis in the *Tractatus*, he ‘vaguely had in mind something like the definition that Russell had given for the definite article’ (definite descriptions) (PG 210–11, WR 40–1). He does admit that in concepts like that of a sphere he thought that things like visual impressions played a role. He obviously means, however, that how a proposition about a complex object like a sphere should be analysed can be helped by visual impressions, e.g. by our visual impressions of the constant curvature of the surface.

Moreover, Wittgenstein makes the contentious claim, which is not easy to understand, that a name occurs in a proposition only in the nexus of an elementary proposition (TLP 4.23/WR 15). This claim, I believe, cannot be understood except in the light of Russell’s ideas that influenced Wittgenstein.

It is, however, not Russell’s theory of sense-data but his theory of description that influenced him. According to Wittgenstein, Russell performed the service of showing that the apparent logical form of a proposition need not be the real one (TLP 4.0031). For Russell, many apparent names do not function ‘logically’ as proper names at all, but rather as definite descriptions. The apparent name ‘Piccadilly’, for example, turns out to be a shorthand for a definite description of the road running between Hyde Park Corner and Piccadilly Circus in London. Furthermore, for Russell a definite description must be analysed in the context of the whole proposition, where it turns out to be a clause asserting the unique existence of a thing satisfying a certain property, e.g. ‘there is a road such that...’. The proposition in which it occurs is certainly not elementary.

If we cannot tell from the surface form of a sentence whether it expresses an elementary proposition or not, how do we tell it? It is through our grasp of their truth-conditions: that is to say, by our seeing whether their truth or falsity depend on the truth or falsity of other propositions or not. This shows that the elementary propositions are assumed to be logically independent of each other, a view that Wittgenstein was later to criticize and retract. And indeed it may well be that the truth or falsity of no proposition is completely independent of the truth or falsity of every other proposition. If this is so, then we will have to acknowledge that there are no elementary propositions at all in the sense of the *Tractatus*. In this context it is instructive to see what Wittgenstein himself said later in *Philosophical Grammar* about the difficulties in his Tractarian notion of elementary proposition (WR 40–3).

6 Truth, Reference and Interpretation

After examining some problems concerning general and singular propositions and direct experiences, we have prepared ourselves for a better understanding of the fact that the picture theory of elementary propositions was not born out of an attempt to link language and reality by linking names and objects presented. Recall that Wittgenstein thought we can fully describe reality with general propositions. We check the truth or falsity of general (quantified) propositions by comparing what they say with reality also. Why then did he invoke the existence of elementary propositions which are functions of names or simple signs in his sense? Wittgenstein explains that to postulate the possibility of simple signs, to postulate that we should be able to get to them by logical analysis, is to postulate the determinateness of the sense of propositions (TLP 3.2/WR 8). In order to understand this, we must here discuss another
point made in the *Tractatus* that we have not yet mentioned. This is Wittgenstein's attempt to show that describing possible states of affairs on one side and negating or conjoining or disjoining them on the other are two completely different kinds of things.

Logical complexity itself is not an element in any picture. Rather, complex propositions are the result of logical operations carried out on elementary propositions. An operation has a form but it is the form of what we do, not of what there is (TLP 5.2. 5.3/WR 19–29). That is why Wittgenstein protests against calling signs for logical operations (such as negating, conjoining, making a disjunction, etc.) 'logical constants' as Frege and Russell did, which mistakenly suggests that these are names of some kind of objects (TLP 5.41/WR 5.41). The state of affairs described by a doubly negated proposition is not a doubly complex one. It is the same as the state of affairs expressed by the proposition without any negation. Not only do these signs not designate objects, they do not designate any relation in the world, as do the words 'right' and 'left' (TLP 5.42/WR 20). Wittgenstein even claims (strangely in a passage that is given a number with many decimals: TLP 4.0312/WR 13): 'My fundamental thought is that "logical constants do not represent".'7 Wittgenstein's self-proclaimed 'fundamental thought' is that the so-called logical constants, namely the signs for logical operations, do not stand for anything that could be an element of a fact. They are not names at all.

Wittgenstein expresses the rules that govern their use by giving us their truth-functional schemata or truth-tables (TLP 4.31/WR 15–16). Understanding how the logical signs contribute to the sense of the proposition is nothing more than acquiring these rules. We understand that propositions are complex by grasping that they are the results of carrying out these truth-functional operations on simpler propositions. When we come to propositions that we cannot explain in terms of other propositions or of any definition of their constituents, we simply have to understand what the proposition says, which is to grasp what would be the case if it is true. This is an ability that we acquire, which is at the same time a linguistic ability and an ability to look for the state of affairs in the world, and to find that the fact obtains or does not.

What do we mean by saying we simply have to understand what the proposition says? Think of two different ways in which a model of reality, or rather of a possible state of affairs in the world, can be made. The first is to have constituent images that we can identify: for example, that of a car, a tree, a particular person, a stretch of road. Then arrange them so that the whole arrangement depicts a state of affairs, e.g., of an accident involving the person and a car. The other is not to start with the parts, but to aim at depicting a certain state of affairs so that until we get the whole picture, we cannot identify what the parts depict. For example, we can make people see that the whole drawing is that of men fighting in a duel. Then we can say the bent point in the lower left is the right knee of one of the fencers and the straight diagonal line in the top right is the épée of the other fencer. In this case there is nothing about the bent line that makes it represent a knee, nothing about the angle of the other straight line that makes it depict a sword out of the context of the drawing as a whole. It seems to me that the *Tractatus* view of picturing is closer to the second than to the first. The elements to which the analysis leads are determined in a highly contextually dependent manner.

There is a misleading passage which could be read in the first way. This is TLP 4.0311/WR 13, which reads: 'one name stands for one thing, and another for another thing, and they are connected together. And so the whole, like a living picture, presents the atomic fact'. We must realize, however, that this passage fits the second view as well. It is true of the drawing of the duel that one part of the drawing stands for one fencer, another part for the other, and that the whole depicts the duel. At the same time, the first view goes completely against Wittgenstein's claim in TLP 3.3/WR 9, which we referred to at the end of section 3 above, that only in the context of a proposition does a name have meaning. I take this claim to mean that we can understand what it is that the name means (i.e. *bedeutet* or 'refers to' in Frege's sense) by understanding what will be the case if the proposition in which it occurs is true.

Names can be names of all kinds of things. Understanding what kinds of things they are is inseparable from understanding the kind of fact that is depicted by the proposition in which the name occurs. This in turn is related to our understanding of how the name is used in propositions. 'In order to recognize the symbol in the sign, we must consider the significant use' (TLP 3.326/WR 10). His claim that 'if everything in the symbolism works as though a sign had meaning, then it has meaning (Bedeutung)' (TLP 3.328/WR 10), where *Bedeutung* should be understood in the way Frege used it, namely to mean the thing referred to, is very close to his assertion in the *Philosophical Investigations* (§343) that grammar tells us what kind of object something is. Both are provocative but interesting claims. The *Tractatus* view of language is limited compared to Wittgenstein's later views, because it considers only its fact-stating role, and because it does not consider it together with other human activities. Yet, despite the many changes and conscious criticism of his own earlier works and revisions that Wittgenstein was to make, we see an important continuity in this area between the *Tractatus* and the *Philosophical Investigations*. It lies in his belief in the inseparability of the grasp of the public, conventional use of signs and their meaning or reference, and in the equally
intimate connection between the understanding of what a proposition says, which is the understanding of what will be the case if the proposition is true, and the kind of objects the proposition is about. These are the sources of the link between language and reality. The link does not come from our ability to point to a single item in the world and utter a word, nor from any causal link between the item in the world and the experience of the language user or inventor.

In recent philosophy it has been often asserted that theories of interpretation do not give us any exit from a world we construct out of beliefs and theories based on our experiences. They give, some influential philosophers have insisted, at most an internal realism. The picture theory, however, is a theory of interpretation in a world which is there to be compared with what we think and say. We do not construct or invent the world in which we find ourselves, even if the facts we look for, and find or not find, and the objects we individuate are shaped and limited by our language.

We are now in a position to understand also what might be meant by the contentious claim, mentioned in the beginning of this essay, that there is no thinking, presenting subject (TLP 5.631/WR 25). Obviously, Wittgenstein is not denying that there are psychological facts about human beings that think or present facts to themselves. He is thinking of what past philosophers have thought was a philosophical problem as distinct from a psychological problem about subjectivity, which they have referred to as the problem of the transcendental ego, or as the problem of pure subjectivity, namely features that characterize any thinking, or thinking as such, rather than that of one individual as distinct from another. Wittgenstein thinks that it is wrong to think of this metaphysical subject as something (albeit a transcendental thing) to which the world as a whole is related, in analogy to the way an individual subject is related to a given object or an eye to the visual field. It is rather the limit of the world: the limit of the language with which we can think and identify facts in the world. The moment we think of it as a term of a relation, we imagine it in the manner in which we think of things related in the world. He later said that it is better to think of the metaphysical self in analogy to grammar, that which gives the forms and boundaries of our world.

The Wittgenstein of the Tractatus claims that ‘the limits of that language (the language which [alone] I understand) means the limits of my world’ (TLP 5.62/WR 25), and yet that this apparent solipsism strictly carried out coincides with pure realism (TLP 5.64/WR 25). It is a controversial position based, however, on a subtle view about the limits imposed by language on our thoughts and the facts we find in the world. This position still merits our careful thought and reflection.9

Notes

1 Here also Wittgenstein adds his own idea. In principle it is not necessary to have a sign for a function. One can express which function it is, by a pattern of the variables. A proposition is a function of names. Different functions can, in principle, be expressed by different patterns or concatenations of the names, as he says in TLP 4.24. Even when we use signs for functions we can treat the function sign as contributing to the pattern of names, such that ‘f’ and ‘g’ are different patterns of ‘a’ and ‘b’. Thus a propositional sign is a fact (TLP 3.14/WR 7).

2 In the original text of PI Wittgenstein refers to the sword Nothung of the Nordic Myth that appears in Wagner’s Ring. Elizabeth Anscombe has taken an example more familiar to Anglophone readers in her translation.

3 Unless we take ‘Bild’ to mean ‘image’ in the logical or mathematical sense, we would not understand the Tractatus claim that ‘it is only in so far as a proposition is logically articulated that it is a “Bild” of a situation’ (TLP 4.032). What is meant by ‘logically articulated’ is explained in the following way: In a proposition there must be exactly as many distinguishable parts as in the situation it represents. The two must possess the same logical (mathematical) multiplicity’ (TLP 4.04).

4 When I wrote this paper I was unfortunately not aware of Peter Simmons’s interesting paper on Russell and Wittgenstein on Complexes.

5 For example, in Michael Dummett’s Frege: Philosophy of Language (Duckworth, London, 1981), p. 198, we read ‘This realist ingredient in Frege’s theory of reference is of course linked with the idea of the name/bearer relation as the prototype for the relation of reference’. Ernest Tugendhat disagrees with this view.

6 The variable indicates what Wittgenstein calls logisches Urbild, which is translated as ‘logical prototype’ (TLP 3.24, 5.522/WR. 8, 23). It seems to me, however, that Wittgenstein is using the expression as in mathematics, where Urbild means inverse image, a restricted part of the domain that corresponds to a specified part of the field of the function. Moreover, Wittgenstein uses the expression somewhat loosely here, as many mathematicians appear to have done at that time, namely to mean the domain of the function. The domain is not a universal one, as it was for Frege. Each function has its suitable domain.

7 As I have suggested in an article written some twenty years ago, it is important to notice that there is not even a family resemblance between the two different important relationships expressed by ‘verreten’ and ‘darstellen’ that figure in the Tractatus. In the Ogden translation used in WR, both are misleadingly translated by the same word ‘represent’ in several passages. ‘Verreten’, which is actually used by Wittgenstein interchangeably with ‘standing for’, to express a relation between an expression and an object, is translated ‘represent’ in 3.22, 3.221, 4.0312. ‘Darstellen’ expresses a quite different relationship that holds between fact and fact, when one expresses the other (2.15, 2.151, 2.1513, 2.1514, 2.17, 2.173, 2.174, 2.18, 2.181, 2.2, 2.201, 2.202, 2.203, 2.22, 4.015, 4.016). This relationship is expressed in the Tractatus also by the verb to project (projektieren), to map (abbilden) and to present (vorsellen). It is the arrangement of one kind of thing, that represents or maps a
state of affairs concerning another kind of thing. When we see the former as doing this, we see it is an image (Bild) of the latter. The so-called ‘picture theory’ is a misleading name of this position held by Wittgenstein in the Tractatus asserting the fundamental difference of the role of names or singular terms and propositions. (A fuller argument is given in Hidé Ishiguro, ‘Subjects, Predicates, Isomorphic Representation and Language Games’ in Essays in Honour of Jaakko Hintikka, Reidel, 1979.

Thus I disagree with Hilary Putnam’s claim that the theory of language understanding has less to do with theory of truth and reference than is generally believed, and I am puzzled by his citing the fact that Wittgenstein held his picture theory of meaning and use theory of meaning in different periods of his life as illustrating his case.


Many people are puzzled by the importance which philosophers, at least in recent times, give to language. To these people, it is the world which seems important, not words. Why should philosophers be so concerned about the connection between the two? Wittgenstein’s Tractatus may in this respect be instructive, for it combines the two concerns. It begins with the conditions for signs and ends with the transcendence of the world. It will be useful to consider how the one leads to the other. Let us begin with words and things and the problem of how they are connected.

At first sight, the problem may seem easily solved. For example, if I say ‘It is raining’, that is one event. If it is raining, that is another. The two are connected because the former represents the latter. That indeed is true, but it covers many problems. For example, what if my statement is false? It is not in fact raining. Then there is nothing in the world to correspond to my statement. Nevertheless my statement still represents the world, for otherwise it could not even be false.¹

It may now occur to us that the connection must have been made earlier. For example, a child is usually taught the meaning of that statement when it is raining. His parents point to the rain, utter those words and thus make the connection between the two. Here we have a direct connection between the symbols and the world. A little reflection will reveal, however, that the connection is not as direct as it seems. For example, many things occur in the world when a parent points. The child cannot grasp the connection between ‘It is raining’ and the world unless he can take the pointing gesture as the parent intends. Here we may get some sense of the problem. Pointing is a symbolic gesture; in short, it is itself a kind of symbol. Consequently one set of