Ludwig
Wittgenstein

Tractatus Logico-Philosophicus

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With an introduction by Bertrand Russell



London and New York

5. Wittgenstein: Tractatus, 2.1--3.5 and 4--4.0641

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

2.031 In a state of affairs objects stand in a determinate relation to one another.

2.032 The determinate way in which objects are connected in a state of affairs is the structure of the state of affairs.

2.033 Form is the possibility of structure.

2.034 The structure of a fact consists of the structures of states of affairs.

2.04 The totality of existing states of affairs is the world.

2.05 The totality of existing states of affairs also determines which states of affairs do not exist.

2.06 The existence and non-existence of states of affairs is reality.
(We also call the existence of states of affairs a positive fact, and their non-existence a negative fact.)

2.061 States of affairs are independent of one another.

Independence of states of affairs, the claim the two shades test.

2.062 From the existence or non-existence of one state of affairs it is impossible to infer the existence or non-existence of another.

2.063 The sum-total of reality is the world.

2.1 We picture facts to ourselves.

2.11 A picture presents a situation in logical space, the existence and non-existence of states of affairs.

2.12 A picture is a model of reality.

2.13 In a picture objects have the elements of the picture corresponding to them.

2.131 In a picture the elements of the picture are the representatives of objects.

A picture is a fact, and its arrangement says how things are arranged.

2.14 What constitutes a picture is that its elements are related to one another in a determinate way.

2.141 A picture is a fact.

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.

Structure, and pictorial form as its possibility.

Let us call this connexion of its elements the structure of the picture, and let us call the possibility of this structure the pictorial form of the picture.

2.151 Pictorial form is the possibility that things are related to one another in the same way as the elements of the picture.

2.1511 *That* is how a picture is attached to reality; it reaches right out to it.

The ruler laid against reality. Only its end-points touch.

2.1512 It is laid against reality like a measure.

2.15121 Only the end-points of the graduating lines actually *touch* the object that is to be measured.

The picture includes its tie to things. The drawing alone isn't yet the picture.

2.1513 So a picture, conceived in this way, also includes the pictorial relationship, which makes it into a picture.

2.1514 The pictorial relationship consists of the correlations of the picture's elements with things.

The feelers, which tie the sketch to the robber and not to Carl, its lookalike.

2.1515 These correlations are, as it were, the feelers of the picture's elements, with which the picture touches reality.

What a picture and the pictured must have in common.

2.16 If a fact is to be a picture, it must have something in common with what it depicts.

2.161 There must be something identical in a picture and what

it depicts, to enable the one to be a picture of the other at all.

2.17 What a picture must have in common with reality, in order to be able to depict it—correctly or incorrectly—in the way it does, is its pictorial form.

Pictorial form lets a picture depict rightly or wrongly. So a false picture still depicts.

2.171 A picture can depict any reality whose form it has.

What a picture can depict, and what it can only display: its own form.

A spatial picture can depict anything spatial, a coloured one anything coloured, etc.

2.172 A picture cannot, however, depict its pictorial form: it displays it.

2.173 A picture represents its subject from a position outside it. (Its standpoint is its representational form.) That is why a picture represents its subject correctly or incorrectly.

It represents from outside, but can't step outside its own form.

2.174 A picture cannot, however, place itself outside its representational form.

2.18 What any picture, of whatever form, must have in common with reality, in order to be able to depict it—correctly or incorrectly—in any way at all, is logical form, i.e. the form of reality.

Logical form: the minimum any picture shares with reality.

2.181 A picture whose pictorial form is logical form is called a logical picture.

2.182 Every picture is *at the same time* a logical one. (On the other hand, not every picture is, for example, a spatial one.)

2.19 Logical pictures can depict the world.

2.2 A picture has logico-pictorial form in common with what it depicts.

2.201 A picture depicts reality by representing a possibility of existence and non-existence of states of affairs.

Depicting reality by representing a possibility.

Representing a possible situation, whose possibility it contains.

2.202 A picture represents a possible situation in logical space.

2.203 A picture contains the possibility of the situation that it represents.

2.21 A picture agrees with reality or fails to agree; it is correct or incorrect, true or false.

It represents by its form, true or not. That is its sense.

2.22 What a picture represents it represents independently of its truth or falsity, by means of its pictorial form.

2.221 What a picture represents is its sense.

Truth as agreement of the sense with reality.

2.222 The agreement or disagreement of its sense with reality constitutes its truth or falsity.

2.223 In order to tell whether a picture is true or false we must compare it with reality.

No reading truth off the picture alone, and none true a priori.

2.224 It is impossible to tell from the picture alone whether it is true or false.

2.225 There are no pictures that are true a priori.

The thought as a logical picture, where the feelers question leads.

3 A logical picture of facts is a thought.

3.001 'A state of affairs is thinkable': what this means is that we can picture it to ourselves.

3.01 The totality of true thoughts is a picture of the world.

3.02 A thought contains the possibility of the situation of which it is the thought. What is thinkable is possible too.

Nothing illogical can be thought, and no illogical world described.

3.03 Thought can never be of anything illogical, since, if it were, we should have to think illogically.

3.031 It used to be said that God could create anything except what would be contrary to the laws of logic.—The truth is that we could not *say* what an 'illogical' world would look like.

The geometry comparison: no coordinates for a figure defying space.

3.032 It is as impossible to represent in language anything that 'contradicts logic' as it is in geometry to represent by its co-ordinates a figure that contradicts the laws of space, or to give the co-ordinates of a point that does not exist.

We can picture spatially what breaks physics, not what breaks geometry.

3.0321 Though a state of affairs that would contravene the laws of physics can be represented by us spatially, one that would contravene the laws of geometry cannot.

3.04 If a thought were correct a priori, it would be a thought whose possibility ensured its truth.

3.05 A priori knowledge that a thought was true would be possible only if its truth were recognizable from the thought itself (without anything to compare it with).

3.1 In a proposition a thought finds an expression that can be perceived by the senses.

The sign as a projection of a possible situation. Thinking its sense is what projects it.

3.11 We use the perceptible sign of a proposition (spoken or written, etc.) as a projection of a possible situation.

The method of projection is to think of the sense of the proposition.

3.12 I call the sign with which we express a thought a propositional sign.—And a proposition is a propositional sign in its projective relation to the world.

3.13 A proposition includes all that the projection includes, but not what is projected.

Therefore, though what is projected is not itself included, its possibility is.

A proposition, therefore, does not actually contain its sense, but does contain the possibility of expressing it.

('The content of a proposition' means the content of a proposition that has sense.)

A proposition contains the form, but not the content, of its sense.

The propositional sign is a fact too, words in a determinate relation.

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.

3.141 A proposition is not a blend of words.—(Just as a theme in music is not a blend of notes.)

A proposition is articulate.

Only facts express a sense. A list of names can't.

3.142 Only facts can express a sense, a set of names cannot.

3.143 Although a propositional sign is a fact, this is obscured by the usual form of expression in writing or print.

For in a printed proposition, for example, no essential difference is apparent between a propositional sign and a word.

(That is what made it possible for Frege to call a proposition a composite name.)

The furniture sentence: tables, chairs and books for written signs.

3.1431 The essence of a propositional sign is very clearly seen if we imagine one composed of spatial objects (such as tables, chairs, and books) instead of written signs.

Then the spatial arrangement of these things will express the sense of the proposition.

The claim often read backwards. What says that aRb is a fact about the signs.

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*.'

3.144 Situations can be described but not *given names*.

(Names are like points; propositions like arrows—they have sense.)

Simple signs, and the completely analysed proposition.

3.2 In a proposition a thought can be expressed in such a way that elements of the propositional sign correspond to the objects of the thought.

3.201 I call such elements 'simple signs', and such a proposition 'completely analysed'.

Simple signs are names. The object a name stands for is its meaning.

3.202 The simple signs employed in propositions are called names.

3.203 A name means an object. The object is its meaning. ('*A*' is the same sign as '*A*'.)

3.21 The configuration of objects in a situation corresponds to the configuration of simple signs in the propositional sign.

The name stands in for the object. Objects can only be named, and a proposition says how a thing is, not what.

3.22 In a proposition a name is the representative of an object.

3.221 Objects can only be *named*. Signs are their representatives. I can only speak *about* them: I cannot *put them into words*. Propositions can only say *how* things are, not *what* they are.

Determinate sense: the 3.2s' own reason for simple signs.

3.23 The requirement that simple signs be possible is the requirement that sense be determinate.

3.24 A proposition about a complex stands in an internal relation to a proposition about a constituent of the complex.

A complex is only described. If there's none, the proposition is simply false.

A complex can be given only by its description, which will be right or wrong. A proposition that mentions a complex will not be nonsensical, if the complex does not exist, but simply false.

A sign for a complex gives itself away by an indeterminateness.

When a propositional element signifies a complex, this can be seen from an indeterminateness in the propositions in which it occurs. In such cases we *know* that the proposition leaves something undetermined. (In fact the notation for generality *contains* a prototype.)

The contraction of a symbol for a complex into a simple symbol can be expressed in a definition.

Just one complete analysis, which the chessboard question tests.

3.25 A proposition has one and only one complete analysis.

3.251 What a proposition expresses it expresses in a

determinate manner, which can be set out clearly: a proposition is articulate.

A name is a primitive sign. No definition takes it apart.

3.26 A name cannot be dissected any further by means of a definition: it is a primitive sign.

3.261 Every sign that has a definition signifies *via* the signs that serve to define it; and the definitions point the way.

Two signs cannot signify in the same manner if one is primitive and the other is defined by means of primitive signs. Names *cannot* be anatomized by means of definitions.

(Nor can any sign that has a meaning independently and on its own.)

3.262 What signs fail to express, their application shows. What signs slur over, their application says clearly.

Elucidations already contain the name, so they presuppose its meaning. The circle in learning a name.

3.263 The meanings of primitive signs can be explained by means of elucidations. Elucidations are propositions that contain the primitive signs. So they can only be understood if the meanings of those signs are already known.

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

3.31 I call any part of a proposition that characterizes its sense an expression (or a symbol).

(A proposition is itself an expression.)

Everything essential to their sense that propositions can have in common with one another is an expression.

An expression is the mark of a form and a content.

3.311 An expression presupposes the forms of all the propositions in which it can occur. It is the common characteristic mark of a class of propositions.

3.312 It is therefore presented by means of the general form of the propositions that it characterizes.

In fact, in this form the expression will be *constant* and everything else *variable*.

Expressions as propositional variables. White's reading of 'Seven is red' starts here.

3.313 Thus an expression is presented by means of a variable whose values are the propositions that contain the expression.

(In the limiting case the variable becomes a constant, the expression becomes a proposition.)

I call such a variable a 'propositional variable'.

3.314 An expression has meaning only in a proposition. All variables can be construed as propositional variables.

(Even variable names.)

3.315 If we turn a constituent of a proposition into a variable, there is a class of propositions all of which are values of the resulting variable proposition. In general, this class too will be dependent on the meaning that our arbitrary conventions have given to parts of the original proposition. But if all the signs in it that have arbitrarily determined meanings are turned into variables, we shall still get a class of this kind. This one, however, is not dependent on any convention, but solely on the nature of the proposition. It corresponds to a logical form—a logical prototype.

3.316 What values a propositional variable may take is something that is stipulated.

The stipulation of values *is* the variable.

3.317 To stipulate values for a propositional variable is *to give the propositions* whose common characteristic the variable is.

The stipulation is a description of those propositions.

The stipulation will therefore be concerned only with symbols, not with their meaning.

And the *only* thing essential to the stipulation is *that it is merely a description of symbols and states nothing about what is signified*.

How the description of the propositions is produced is not essential.

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

Sign and symbol: one sign can belong to two symbols.

3.32 A sign is what can be perceived of a symbol.

3.321 So one and the same sign (written or spoken, etc.) can be common to two different symbols—in which case they will signify in different ways.

3.322 Our use of the same sign to signify two different objects can never indicate a common characteristic of the two, if we use it with two different *modes of signification*. For the sign, of course, is arbitrary. So we could choose two different signs instead, and then what would be left in common on the signifying side?

Everyday language does it constantly: one word, several symbols.

3.323 In everyday language it very frequently happens that the same word has different modes of signification—and so belongs to different symbols—or that two words that have different modes of signification are employed in propositions in what is superficially the same way.

The 'is' of copula, identity and existence.

Thus the word 'is' figures as the copula, as a sign for identity, and as an expression for existence; 'exist' figures as an intransitive verb like 'go', and 'identical' as an adjective; we speak of *something*, but also of *something's* happening.

Green is green: a name and an adjective, two symbols in one sign.

(In the proposition, 'Green is green'—where the first word is the proper name of a person and the last an adjective—these words do not merely have different meanings: they are *different symbols*.)

3.324 In this way the most fundamental confusions are easily produced (the whole of philosophy is full of them).

3.325 In order to avoid such errors we must make use of a

sign-language that excludes them by not using the same sign for different symbols and by not using in a superficially similar way signs that have different modes of signification: that is to say, a sign-language that is governed by *logical* grammar—by logical syntax.

(The conceptual notation of Frege and Russell is such a language, though, it is true, it fails to exclude all mistakes.)

3.326 In order to recognize a symbol by its sign we must observe how it is used with a sense.

3.327 A sign does not determine a logical form unless it is taken together with its logico-syntactical employment.

3.328 If a sign is *useless*, it is meaningless. That is the point of Occam's maxim.

(If everything behaves as if a sign had meaning, then it does have meaning.)

3.33 In logical syntax the meaning of a sign should never play a rôle. It must be possible to establish logical syntax without mentioning the *meaning* of a sign: *only* the description of expressions may be presupposed.

3.331 From this observation we turn to Russell's 'theory of types'. It can be seen that Russell must be wrong, because he had to mention the meaning of signs when establishing the rules for them.

3.332 No proposition can make a statement about itself, because a propositional sign cannot be contained in itself (that is the whole of the 'theory of types').

3.333 The reason why a function cannot be its own argument is that the sign for a function already contains the prototype of its argument, and it cannot contain itself.

For let us suppose that the function F(fx) could be its

own argument: in that case there would be a proposition '$F(F(fx))$', in which the outer function F and the inner function F must have different meanings, since the inner one has the form $\varphi(fx)$ and the outer one has the form $\psi(\varphi(fx))$. Only the letter 'F' is common to the two functions, but the letter by itself signifies nothing.

This immediately becomes clear if instead of '$F(Fu)$' we write '$(\exists\varphi):F(\varphi u).\varphi u = Fu$'.

That disposes of Russell's paradox.

3.334 The rules of logical syntax must go without saying, once we know how each individual sign signifies.

3.34 A proposition possesses essential and accidental features.

Accidental features are those that result from the particular way in which the propositional sign is produced. Essential features are those without which the proposition could not express its sense.

3.341 So what is essential in a proposition is what all propositions that can express the same sense have in common.

And similarly, in general, what is essential in a symbol is what all symbols that can serve the same purpose have in common.

3.3411 So one could say that the real name of an object was what all symbols that signified it had in common. Thus, one by one, all kinds of composition would prove to be unessential to a name.

3.342 Although there is something arbitrary in our notations, *this* much is not arbitrary—that *when* we have determined one thing arbitrarily, something else is necessarily the case. (This derives from the *essence* of notation.)

3.3421 A particular mode of signifying may be unimportant but it is always important that it is a *possible* mode of signifying. And that is generally so in philosophy: again and

again the individual case turns out to be unimportant, but the possibility of each individual case discloses something about the essence of the world.

3.343 Definitions are rules for translating from one language into another. Any correct sign-language must be translatable into any other in accordance with such rules: it is *this* that they all have in common.

3.344 What signifies in a symbol is what is common to all the symbols that the rules of logical syntax allow us to substitute for it.

3.3441 For instance, we can express what is common to all notations for truth-functions in the following way: they have in common that, for example, the notation that uses '$\sim p$' ('not p') and '$p \vee q$' ('p or q') *can be substituted* for any of them.

(This serves to characterize the way in which something general can be disclosed by the possibility of a specific notation.)

3.3442 Nor does analysis resolve the sign for a complex in an arbitrary way, so that it would have a different resolution every time that it was incorporated in a different proposition.

3.4 A proposition determines a place in logical space. The existence of this logical place is guaranteed by the mere existence of the constituents—by the existence of the proposition with a sense.

3.41 The propositional sign with logical co-ordinates—that is the logical place.

3.411 In geometry and logic alike a place is a possibility: something can exist in it.

3.42 A proposition can determine only one place in logical

space: nevertheless the whole of logical space must already be given by it.

(Otherwise negation, logical sum, logical product, etc.; would introduce more and more new elements—in co-ordination.)

(The logical scaffolding surrounding a picture determines logical space. The force of a proposition reaches through the whole of logical space.)

3.5 A propositional sign, applied and thought out, is a thought.

4 A thought is a proposition with a sense.

4.001 The totality of propositions is language.

4.002 Man possesses the ability to construct languages capable of expressing every sense, without having any idea how each word has meaning or what its meaning is—just as people speak without knowing how the individual sounds are produced.

Everyday language is a part of the human organism and is no less complicated than it.

It is not humanly possible to gather immediately from it what the logic of language is.

Language disguises thought: the clothing isn't cut to show the body.

Language disguises thought. So much so, that from the outward form of the clothing it is impossible to infer the form of the thought beneath it, because the outward form of the clothing is not designed to reveal the form of the body, but for entirely different purposes.

The tacit conventions on which the understanding of everyday language depends are enormously complicated.

Philosophers' questions: mostly not false but nonsensical.

4.003 Most of the propositions and questions to be found in philosophical works are not false but nonsensical. Consequently we cannot give any answer to questions of this

kind, but can only point out that they are nonsensical. Most of the propositions and questions of philosophers arise from our failure to understand the logic of our language.

The model case: is the good more identical than the beautiful?

(They belong to the same class as the question whether the good is more or less identical than the beautiful.)

And it is not surprising that the deepest problems are in fact *not* problems at all.

Russell's service: apparent logical form needn't be the real one.

4.0031 All philosophy is a 'critique of language' (though not in Mauthner's sense). It was Russell who performed the service of showing that the apparent logical form of a proposition need not be its real one.

4.01 A proposition is a picture of reality.

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

A picture and model of reality, though print doesn't look like one.

4.011 At first sight a proposition—one set out on the printed page, for example—does not seem to be a picture of the reality with which it is concerned. But neither do written notes seem at first sight to be a picture of a piece of music, nor our phonetic notation (the alphabet) to be a picture of our speech.

Scores and the alphabet turn out to be pictures in the ordinary sense.

And yet these sign-languages prove to be pictures, even in the ordinary sense, of what they represent.

4.012 It is obvious that a proposition of the form '*aRb*' strikes us as a picture. In this case the sign is obviously a likeness of what is signified.

4.013 And if we penetrate to the essence of this pictorial character, we see that it is *not* impaired by *apparent irregularities* (such as the use of ♯ and ♭ in musical notation).

For even these irregularities depict what they are intended to express; only they do it in a different way.

4.014 A gramophone record, the musical idea, the written

Record, idea, score and sound-waves: one relation of depicting.

notes, and the sound-waves, all stand to one another in the same internal relation of depicting that holds between language and the world.

They are all constructed according to a common logical pattern.

(Like the two youths in the fairy-tale, their two horses, and their lilies. They are all in a certain sense one.)

The rule that leads from score to symphony and from groove back to score. That's their likeness.

4.0141 There is a general rule by means of which the musician can obtain the symphony from the score, and which makes it possible to derive the symphony from the groove on the gramophone record, and, using the first rule, to derive the score again. That is what constitutes the inner similarity between these things which seem to be constructed in such entirely different ways. And that rule is the law of projection which projects the symphony into the language of musical notation. It is the rule for translating this language into the language of gramophone records.

4.015 The possibility of all imagery, of all our pictorial modes of expression, is contained in the logic of depiction.

Hieroglyphs, and the alphabet that grew out of them.

4.016 In order to understand the essential nature of a proposition, we should consider hieroglyphic script, which depicts the facts that it describes.

And alphabetic script developed out of it without losing what was essential to depiction.

Why it's a picture. I understand a new proposition without having its sense explained.

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.

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.

Showing and saying: it shows how things stand if it's true, and says they do.

4.022 A proposition *shows* its sense.

A proposition *shows* how things stand if it is true. And it *says that* they do so stand.

4.023 A proposition must restrict reality to two alternatives: yes or no.

In order to do that, it must describe reality completely.

A proposition is a description of a state of affairs.

Just as a description of an object describes it by giving its external properties, so a proposition describes reality by its internal properties.

A proposition constructs a world with the help of a logical scaffolding, so that one can actually see from the proposition how everything stands logically if it is true. One can *draw inferences* from a false proposition.

4.024 To understand a proposition means to know what is the case if it is true.

Understanding is knowing what's the case if it's true, not whether it is. Knowing the parts is enough.

(One can understand it, therefore, without knowing whether it is true.)

It is understood by anyone who understands its constituents.

4.025 When translating one language into another, we do not proceed by translating each *proposition* of the one into a *proposition* of the other, but merely by translating the constituents of propositions.

(And the dictionary translates not only substantives, but also verbs, adjectives, and conjunctions, etc.; and it treats them all in the same way.)

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

With propositions, however, we make ourselves understood.

Old expressions, new sense. So it must be tied to the situation, as its logical picture.

4.027 It belongs to the essence of a proposition that it should be able to communicate a *new* sense to us.

4.03 A proposition must use old expressions to communicate a new sense.

A proposition communicates a situation to us, and so it must be *essentially* connected with the situation.

And the connexion is precisely that it is its logical picture.

A proposition states something only in so far as it is a picture.

A situation put together by way of experiment.

4.031 In a proposition a situation is, as it were, constructed by way of experiment.

Instead of, 'This proposition has such and such a sense', we can simply say, 'This proposition represents such and such a situation'.

The tableau vivant: one name per thing, presenting a state of affairs.

4.0311 One name stands for one thing, another for another thing, and they are combined with one another. In this way the whole group—like a tableau vivant—presents a state of affairs.

4.0312 The possibility of propositions is based on the principle that objects have signs as their representatives.

The fundamental idea: the logical constants stand in for nothing.

My fundamental idea is that the 'logical constants' are not representatives; that there can be no representatives of the *logic* of facts.

4.032 It is only in so far as a proposition is logically articulated that it is a picture of a situation.

Ambulo: one word, yet two parts to tell apart.

(Even the proposition, 'Ambulo', is composite: for its stem with a different ending yields a different sense, and so does its ending with a different stem.)

4.04 In a proposition there must be exactly as many distinguishable parts as in the situation that it represents.

Logical multiplicity: as much to tell apart as in the situation.

The two must possess the same logical (mathematical) multiplicity. (Compare Hertz's *Mechanics* on dynamical models.)

4.041 This mathematical multiplicity, of course, cannot itself be the subject of depiction. One cannot get away from it when depicting.

4.0411 If, for example, we wanted to express what we now write as '(x).fx' by putting an affix in front of 'fx'—for instance by writing 'Gen. fx'—it would not be adequate: we should not know what was being generalized. If we wanted to signalize it with an affix '$_g$'—for instance by writing 'f(x_g)'—that would not be adequate either: we should not know the scope of the generality-sign.

If we were to try to do it by introducing a mark into the argument-pieces—for instance by writing

'(G,G).F(G,G)'

—it would not be adequate: we should not be able to establish the identity of the variables. And so on.

All these modes of signifying are inadequate because they lack the necessary mathematical multiplicity.

4.0412 For the same reason the idealist's appeal to 'spatial spectacles' is inadequate to explain the seeing of spatial relations, because it cannot explain the multiplicity of these relations.

4.05 Reality is compared with propositions.

True or false only as a picture compared with reality. Its sense doesn't depend on the facts.

4.06 A proposition can be true or false only in virtue of being a picture of reality.

4.061 It must not be overlooked that a proposition has a sense that is independent of the facts: otherwise one can easily suppose that true and false are relations of equal status between signs and what they signify.

In that case one could say, for example, that 'p'

signified in the true way what '~p' signified in the false way, etc.

Could we get by on false propositions? No: read our way, 'p' would be true.

4.062 Can we not make ourselves understood with false propositions just as we have done up till now with true ones?—So long as it is known that they are meant to be false.—No! For a proposition is true if we use it to say that things stand in a certain way, and they do; and if by 'p' we mean ~p and things stand as we mean that they do, then, construed in the new way, 'p' is true and not false.

'p' and 'not-p' can say the same. So nothing in reality answers to 'not'.

4.0621 But it is important that the signs 'p' and '~p' *can* say the same thing. For it shows that nothing in reality corresponds to the sign '~'.

The occurrence of negation in a proposition is not enough to characterize its sense (~~p = p).

Opposite senses, one reality. Then the black spot on white paper, a simile for truth.

The propositions 'p' and '~p' have opposite sense, but there corresponds to them one and the same reality.

4.063 An analogy to illustrate the concept of truth: imagine a black spot on white paper: you can describe the shape of the spot by saying, for each point on the sheet, whether it is black or white. To the fact that a point is black there corresponds a positive fact, and to the fact that a point is white (not black), a negative fact. If I designate a point on the sheet (a truth-value according to Frege), then this corresponds to the supposition that is put forward for judgement, etc. etc.

Settling when 'p' is called true is settling its sense.

But in order to be able to say that a point is black or white, I must first know when a point is called black, and when white: in order to be able to say, ' "p" is true (or false)', I must have determined in what circumstances I call 'p' true, and in so doing I determine the sense of the proposition.

Now the point where the simile breaks down is this:

Where the simile fails: nothing there to bear 'true' or 'false'.

we can indicate a point on the paper even if we do not know what black and white are, but if a proposition has no sense, nothing corresponds to it, since it does not designate a thing (a truth-value) which might have properties called 'false' or 'true'. The verb of a proposition is not 'is true' or 'is false', as Frege thought: rather, that which 'is true' must already contain the verb.

Against Frege: 'is true' isn't the verb. What's true already contains the verb.

4.064 Every proposition must *already* have a sense: it cannot be given a sense by affirmation. Indeed its sense is just what is affirmed. And the same applies to negation, etc.

Affirmation gives no sense. The sense is just what's affirmed.

4.0641 One could say that negation must be related to the logical place determined by the negated proposition.

The negating proposition determines a logical place *different* from that of the negated proposition.

The negating proposition determines a logical place with the help of the logical place of the negated proposition. For it describes it as lying outside the latter's logical place.

The negated proposition can be negated again, and this in itself shows that what is negated is already a proposition, and not merely something that is preliminary to a proposition.

4.1 Propositions represent the existence and non-existence of states of affairs.

4.11 The totality of true propositions is the whole of natural science (or the whole corpus of the natural sciences).

4.111 Philosophy is not one of the natural sciences.

(The word 'philosophy' must mean something whose place is above or below the natural sciences, not beside them.)

4.112 Philosophy aims at the logical clarification of thoughts.

Philosophy is not a body of doctrine but an activity.