Tractatus Logico-Philosophicus – the Introduction of the Archetypal Sign of Logic

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Which is the idea Wittgenstein strove to make intelligible to the collective consciousness? Why it is important?

The result of our investigation so far shows that nothing essential was achieved. By marking the points at which we make wrong moves, we can come to the solution. It is required intellectual independence and readiness to drop previous notions, for Wittgenstein's work considers something which we do not expect.

Ground to Step on

1. The *Tractatus* cannot be interpreted: one either understands it or not. This is so, because "the *meaning* mustn't be capable of interpretation"; it "is the last interpretation". (Wittgenstein 1972) If we want to understand the meaning the *Tractatus* conveys, we have to respect the rules which the text establishes for its reading. For instance, if the *Tractatus* deals with the equilibrium of all propositions which displays the logical structure of language, reality, the world, it forces on one the form of interaction with its text: there is a picture to be seen – the archetypal sign of logic representing the structure of the logical space.

2. Wittgenstein's work deals with a single object "seen from different angles." (Wittgenstein 1980) The object concerns the nature of logic – it cannot be spoken of for all language breaks out from it, but only shown. The problem of what can be expressed by language and what cannot be expressed by it, but only shown, is the cardinal problem of philosophy. (Wittgenstein in Monk 2005)

3. Wittgenstein establishes that as there is something to be known by experience – empirical knowledge based on hypotheses, there is also something to be known which is *prior* to experience and does *not* rest on any hypothesis: it is about understanding "the basis, or essence, of everything empirical". (Wittgenstein 1968) It is arrived at in logic. Thus, our problem is *purely* logical.

4. Premises of the *Tractatus*' model of logic: 1) logic is *prior* to the world; 2) whatever can be said about logic, the said one cannot escape the logic of language; 3) language is organic to our nature (4. 002). Therefore, language is the only available to us epistemology: if we want to know something about the world, reality and ourselves, we have to know the nature of logic.

The Bipolar Structure of Logic or the Archetypal Sign of Logic

The Structure of the Logical Space is the Structure of the World and Reality.
1. Wittgenstein introduces this structure constituted of two places connected in a loop through the pattern: the totality of facts ("Tatsachen") which fills the logical space consists of two opposites, the positive fact – "everything that is the case", "das Bestehen von Sachverhalten", and the negative fact – everything "that is not the case", "das Nichtbestehen von Sachverhalten". (2. 06)

2. The *Tractatus* starts with an obvious bipolarity. "The world is everything that is the case." (1) What is the case, the fact ("Tatsache"), is "das Bestehen von Sachverhalten". (2) It follows that the world is the *positive* fact in the logical space; it is contained in the pattern. Also, the "world divides into facts" (1. 2) and any of these "can either be the case or not be the case" (1. 21). Thus, the world contains the pattern. On the other hand, the world is the "facts in the logical space". (1. 13) But the facts, "das Bestehen und Nichtbestehen von Sachverhalten", this is the reality. (2. 06) "The total reality is the world". (2. 063) Therefore, the world is everything that fills the logical space: it is both the positive and the negative fact, 'what is the case' and 'what is not the case' – it is the total reality and not the total reality.

3. If Wittgenstein uses "Tatsache" in order to establish that the positive and the negative fact determine two places in the logical space, through the use of "Sachlage" and "Sachverhalt" signifying two levels of logical being of things, objects, expressed through the opposites 'independence – dependence' (2. 0122), he introduces the *form* of their connexion and thus the structure itself.

"Objects form the substance of the world." (2. 021) Substance is the "fixed form of the world" determined by the objects. (2. 026) This is the form of the object which makes possible for it to occur in "Sachverhalten". (2. 0141) "Sachverhalt" is a connexion ("Verbindung") of objects, things (2. 01): the way how an object is connected with other objects in a "Sachverhalt" is its form. In "Sachverhalt" "objects hang one in another, like the links of a chain" (2. 03), where the "meaning is *that there isn't anything third* that connects the links but that the links *themselves* make connexion with one another" (Wittgenstein 1973). The "way in which objects hang together" in the "Sachverhalt" is its structure. (2. 032)

The pattern or form is recognizable: two links of a chain connected in a loop. It gives the structure of the fact (2. 034), i.e. of the world, by the means of two places connected in a loop. The pattern shows that the structure of the fact, of the world lies out of it – the world takes one place in the logical space but the whole structure of this space is its structure. The *loop* by the means of which the two places in the logical space are connected determines that the world is not merely a part of it but the whole of it. The pattern shows the relationship between the world and reality.

The Structure of the Logical Space is the Structure of the Logic of Language.
1. That which "mirrors itself in language" – the logical form common to the proposition and reality (4. 12), "language cannot represent" (4. 121).

1. 1. The "common logico-pictorial form", "general rule", "common logical pattern" or "logical structure", "adequate notation", are one and the same. At this structure language and reality meet each other. To describe the structure, i.e. the general propositional form (5. 471), is to give the essence of a proposition, and to "give the essence

of a proposition means to give the essence of all description, and thus the essence of the world" (2006, 5. 4711).

1. 2. The description of the general propositional form is the description of the one and only general archetypal sign of logic (5. 472: "des einen und einzigen allgemeinen Urzeichens der Logic"): a "possible sign must also be able to signify" (5. 473).

Wittgenstein pictures the bipolar structure of the logical space constituted of two interconnected places: the negating proposition determines in the logical space "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." (2006, 4. 0641) A proposition takes one place in the logical space but the whole structure of this space is the proposition's structure (3. 42): it ensures places to both propositions "p" and "~p".

Despite being constituted of two places the bipolar structure of logic is a single space. It can be usefully imagined as a circle or sphere containing two smaller circles or spheres, let say black and white, both embracing in a loop the centre-point of the larger one, a point at which all things, expressions "are all in a certain sense one" (4. 014). Wittgenstein's model of logic stands for the fundamental Oneness of all things.

2. In logic the sense of a proposition is not what it says but its determined relationship with the two places in the logical space. In logic we deal with the nature of the proposition which "corresponds to a logical form, to a logical prototype". (3. 315)

2. 1. We misunderstand the logic of our language because of the way we understand the truth-conditions of the proposition. A proposition cannot "assert of itself that it is true". (4. 442) "No proposition can make a statement about itself, because a propositional sign cannot be contained in itself". (2006, 3. 332) Respectively, "the sign for a function already contains the prototype of its argument, and it cannot contain itself". (2006, 3. 333) The "generality-sign occurs as an argument" (2006, 5. 523): "it refers to a logical prototype" (5. 522); it "*contains* a prototype" (3. 24) – the archetypal sign of logic representing its structure ("der Bau der Logic"). It could be said that it is the *sole* logical constant – it is "that which *all* propositions, according to their nature, have in common with one another". (5. 47)

2. 2. From "the fact that a proposition is obvious to us it does not *follow* that it is true". (5. 1363) It must be determined under what conditions "p" is called true; otherwise it has no sense. (4. 063)

2. 2. 1. The proposition represents the facts, "das Bestehen und Nichtbestehen der Sachverhalte" (4. 1), but it cannot represent "the *logic* of the facts" (4. 0312). The proposition is a truth-function of elementary propositions (5): they determine its truth-conditions.

The bipolar principle implies that if the proposition is there, i.e. the composite, there has to be also the opposite case: the simplest proposition. The elementary proposition asserts "das Bestehen" of a "Sachverhalt" (4. 21), i.e. a determined connexion of objects. In "Sachverhalt" objects are connected "like the links of a chain", therefore names are also connected by the means of a loop: the elementary proposition consists "of names in immediate connexion" (4. 221); it is "eine Verkettung, von Namen" (4. 22). If it is false, the "Sachverhalt" or a determined connexion does not hold ("nicht besteht"). (4. 25) The totality of the elementary propositions, true and false, describes the world. (4. 26) Here 'true' and 'false' signify positive and negative facts: there being and there being not a determined connexion of objects.

2. 2. 2. As a difference to the "old conception of logic", the *Tractatus* demonstrates that there are no such things as "logical objects" which are called "true" and "false". (4. 441) The *possibilities* of the "Bestehen und Nichtbestehen der Sachverhalte" are the truth-possibilities of the elementary propositions. (4. 3) The expression of the agreement and the disagreement with these truth-possibilities "expresses the truth-conditions of the proposition". (4. 431) Wittgenstein marks the agreement with "T" (true); the absence of this mark means disagreement (4. 43); this permits the use of "F" (false). Both the agreement and the disagreement can be presented simultaneously (see 4. 442): a proposition agrees with some truth-possibilities of *n* elementary propositions and disagrees with some others. In the terms of this notation the proposition is *both* true and non-true: it is true for some "Sachlagen" and non-true for some others.

2. 2. 3. The "rule of combination" allows all the truth-possibilities of *n* elementary propositions and respectively their truth-functions to be ordered (see 5. 101). This shows that all possible groups of truth-conditions are locked between two extreme cases: tautology – the proposition agrees with all the truth-possibilities, i.e. it is true for every "Sachlage"; contradiction – the proposition disagrees with all the truth-possibilities, i.e. it is false for every "Sachlage". (4. 46) Propositions "which are true for every Sachlage" cannot be connexions of signs at all, for if they were, only determined connexions of objects could correspond to them (4. 466) – the way they are connected in "Sachverhalt". Tautology and contradiction are the boundary cases of the connexion of signs, i.e. the dissolution of the connexion. (4. 466)

The dissolution shows the structure of the logical space. Tautology and contradiction are not meaningless for they belong to the symbolism. (4. 4611) "Contradiction is the external limit of the propositions, tautology their substanceless centre." (5. 143) This nullification or equilibrium is the bipolar structure of logic itself.

2. 2. 4. What the ordinary language conceals, the propositions of logic display clearly. For them to "describe the scaffolding of the world … this is their connexion with the world". (6. 124) That they are tautologies, this "*shows* the formal – logical – properties of language, of the world". (6. 12) In a logical proposition "propositions are brought into equilibrium with one another" – the "zero-method". (6. 121) That the constituent parts of logic are *so* connected that "give tautology characterizes the logic of its constituent parts" (6. 12), i.e. the way how the two places in the logical space are connected and everything which follows from that.

Some Implications

1. The *Tractatus* is the *maximum* of the analytical philosophy – there is no step further. Its achievement justifies there being the analytical philosophy.

2. Logic and one's own being are not two different things. The investigator is an essential aspect of reality. An epistemology based on such a model of logic sets limits to an objective truth-investigation: its maximum is the logical pattern given to our experience.

3. The *Tractatus* demonstrates the space left open to "the totality of the natural science" (4. 11). Science

works up to the logical maximum of the sayable language or the boundary of the empirical reality. In the terms of the *Tractatus'* model of logic scientific knowledge is of great importance but it learns its place – science cannot say in nature the essential thing about the world and human being for it cannot say anything about the logic of language which makes it possible. The ignorance of the bipolar structure of logic and its implications meets the consequence that "the modern system makes it appear as though everything were explained" (6. 372).

Conclusion

When a logician introduces an ineffable language of equal power as the sayable, he does not mean that nothing can be done here. On the contrary, because it can be arrived at in logic, it is accessible to everyone.

The *Tractatus* is a proposal for a collective thought-experiment. Let start with the simplest logical condition given to our experience which cannot be refuted: the principle of the opposites.

Literature

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