Wittgenstein's *Tractatus*

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The Role of Philosophy

- "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" (4.002).

- The form of thought is logical.

- The role of philosophy is to reveal the disguised form of thought through a "critique of language" (4.0031).

    - "It was Russell who performed the service of showing that the apparent logical form of a proposition need not be its real one" (4.0031).

- "The totality of propositions is language" (4.001).

- Philosophy is an activity of clarification or elucidation of propositions, not the production of "philosophical propositions" (4.112).

Propositions

- "A proposition is a picture of reality" (4.021).

- Propositions have two aspects.

    - Names, which stand for things.
    - Logical form, the arrangement of the names into the representation of a situation.

- "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" (4.0311).

- A tableau vivant is a painting-like scene containing motionless actors

A Tableau Vivant

"Homage," a tableau vivant by ladies of the Household of Queen Victoria, January 1888.

Logical Form

- A picture is attached to reality insofar as its elements share a structure (a connection of elements) with the reality it depicts (2.15x).

- The pictorial form of a picture is its structure insofar as it can be shared with reality.

  - "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" (2.171).

- A logical picture is a picture whose pictorial form is a logical form.

- The logical form need not be spatial, which allows us to say that propositions have logical form.

The Symbolization of Elementary Propositions

- Conceptual notation provides symbols of "a sign-language that is governed by *logical* grammar—by logical syntax" (3.325).

- The simplest symbols are names, which may be variable ("x," "y," "z") or constant ("a," "b") (4.1211, 4.24)

- Elementary propositions are functions of names:

  - "fx" is a function of one name (4.24),
  - "$\phi(x, y)$," "aRb", "xRb" are functions of two names (4.24, 4.1252), and so on for more names.

- Propositions may be symbolized without reference to their structure using the variables "p," "q," "r" (4.24).

Propositions and Logical Form

- If proposition is to represent reality, then reality itself must have a logical form which may or may not match the logical form of the proposition (4.121).

- The relation between the logical form of reality and that of a proposition is "reflection" or "mirroring" (4.121).

- Propositions cannot represent logical form, because to do so would require that propositions stand outside of logic itself, which is impossible (4.12)

- Instead, propositions "show" or "display" their logical form (4.121).

    - "What *can* be shown, *cannot* be said" (4.1212).

- For example, the propositions "fa" and "ga" show that the same object, represented by the name "a," is mentioned in both (4.121).

Symbolization of Complex Propositions

- Complex propositions may be formed in two ways:

    - By prefixing quantifiers to propositions with variable names, which stand for "pseudo-objects" (2.1272).
        * All objects are f: $(x)fx$,
        * There is an object that is f: $(\exists x)fx$.
    - By applying truth-functions to propositions:
        * Negation: $\sim p$,
        * Logical product (conjunction): $p.q$,
        * Logical sum (disjunction): $p \vee q$.

- The truth or falsehood of complex propositions depends on the truth or falsehood of their components.

Truth-Possibilities

- A proposition by itself makes no assertion, contrary to Russell.

- For every proposition (with exceptions to be noted later) there are two "truth-possibilities," truth and falsehood.

    - A true proposition correctly pictures reality.
    - A false proposition incorrectly pictures reality.

- Truth-possibilities are not objects, as Frege had held they are (4.431, 4.441).

Truth-Functions

- Complex propositions are structured by the occurrence of truth-functions (5, 5.01, 5.3).

- The truth-value of a proposition structured by a truth-function depends entirely on the truth-values of its components.

- A tabluar representation of a truth-function for a pair of proposition p and q is the following (4.442):

p	q	
T	T	T
F	T	T
T	F	F
F	F	T

- If the order of the truth-possibilities of the table is fixed, it can be summarized as:

    - (T,T,F,T) (p, q).

Tautologies and Contradictions

- A complex proposition whose truth-value is true no matter what the truth-value of its arguments is a tautology.

    - (T,T,T,T) (p, q).

- A complex proposition whose truth-value is false no matter what the truth-value of its arguments is a contradiction.

    - (F,F,F,F) (p, q).

- Tautologies and contradictions "show that they say nothing" and "have no sense," though they are not "nonsense" (4.461).

    - They are part of the symbolism, just as 0 is part of the symbolism of mathematics (4.4611)

- They are not pictures of reality, as the representational relations within them cancel one another out (4.462)

Deducibility

- Frege and Russell held that the relations of deducibility among propositions are expressed in "laws of inference" (5.132).

    - For example, *moduls ponens*: from p and $p \supset q$, one may derive q.

- For Wittgenstein, deducibility is semantical and based on the notion of "truth-grounds" (5.101).

- The truth-grounds of a proposition are the possible assignments of truth-values to its component propositions which make the proposition true.

    - For example, in (T F F F) (p, q), only the assignment of T to both "p" and "q" makes the proposition "$p.q$" true.

- "The truth of a proposition 'p' follows from the truth of another proposition 'q' if all the truth-grounds of the latter are truth-grounds of the former" (5.12).

    - For example, all the grounds that make "$p.q$" true make "p" true.

Inference

- "If the truth of one proposition follows from the truth of others, this finds expression in relations in which the forms of the propositions stand to one another" (5.131).

- In deductive inference, we recognize from the structure of the propositions involved that the conclusion follows from the premises.

    - For example, the structure of "$p.q$" makes it obvious that if it is true, then "p" is true.

- This fact renders the Frege-Russell "laws of inference" unnecessary for justifying inference (5.132).

- Moreover, every deduction is made *a priori*.

Causality, Knowledge, and Freedom of the Will

- There is no causal nexus between elementary facts expressed by elementary propositions (5.136).

- "Superstition is nothing but a belief in a causal nexus" (5.1361).

- Without such a nexus to bind them, elementary propositions (which have no truth-functional structure) cannot be deduced from one another (5.135).

- We can only know on the basis of some proposition what follows from it by logical necessity (5.1362).

- Since causality lacks "*inner* necessity like that of logical inference," nothing about the future is known (5.1361).

- The impossibility of knowing future actions is the freedom of the will (5.1361).

The World

- Elementary propositions represent possible elementary (atomic) states of affairs.

- The totality of possible elementary states of affairs is the "logical space" of the world.

- The world itself is the subset of elementary states of affairs which are "facts" or which are "the case," or which "exist."

- Since elementary propositions are pictures of elementary states of affairs, some set of elementary propositions is a picture of the world.

Natural Science

- It is the business of natural science to determine what is the case.

- Natural science is distinct from logic, which holds for all possible states of affairs.

- Natural science employs "laws" which are propositions whose truth is compatible with the truth of a certain range of propositions (6.341).

- The truth of other propositions is incompatible with the truth of the "laws," and so the states of affairs they represent are considered violations of laws of nature.

- "Laws of nature" are *a priori* and concern only the "form" which sets down the limits of what is the case (6.34).

The Subject as Limit of the World

- The totality of facts comprising the world coincides with the totality of elementary propositions in the language of logic.

  - "Logic pervades the world: the limits of the world are also its limits" (5.61).

- Wittgenstein infers that the limits of my language coincide with the limits of my world.

- Moreover, the "subject" that I am is a limit of the world, a "metaphysical subject," rather than body or soul, which are subjects of natural science.

- This gives sense to the solipsistic claim that "the world is my world."

Transcendence

- "All that happens and is the case is accidental" (6.41).

- "Whatever we can describe at all could be other than it is" (6.634).

- Therefore, there is no basis for the ascription of value within the world itself.

- The source of value must be sought outside the world, in something that transcends the world.

- Therefore, the source of ethical values would be transcendent.

- Because what can be said (in propositions) is restricted to the world, "it is clear that ethics cannot be put into words" (6.421).

Death

- Because the world is my world, "the world and life are one" (5.62).

- Thus the end of life is the end of the world.

- The claim that the human soul survives eternally after death solves no riddles.

- In fact, it is itself a riddle that cannot be answered.

- Or even worse, there is no riddle of life, because a riddle can be stated and admits of a possible answer.

- "When the answer cannot be put into words, neither can the question be put into words" (6.5)

- "The solution of the problem of life is seen in the vanishing of the problem" (6.521).

Kicking Away the Ladder

- Wittgenstein has asserted a number of propositions that seem rightly to be described as "philosophical."

- But he has also claimed that there are no philosophical propositions.

  - Every proposition with sense belongs in the realm of natural science.

- The solution to this puzzle is to recognize the pseudo-propositions as steps on a ladder allowing the reader to "climb up beyond them" (6.54).

- Once the reader has "transcended these propositions" and thrown away the ladder, "he will see the world aright."

- But because he can no longer say anything about the world, he must be silent about it.