3rd Lecture 3.9.2019
The Picture Theory

The Picture Theory

My *whole* task consists in explaining the nature of the proposition. (NB p. 39, 22.1.1915)

- How can we *mean* something with language?
- How can we *refer* to something with language?
- What is it that makes a proposition true?
- How can a proposition be false, but still meaningful?
- Can a proposition be true, but without sense (senseless) / nonsensical?
- Can a proposition be false, but without sense (senseless) / nonsensical?

Today's Program

- Basics of the picture theory
  - Picturing
  - Elementary propositions
  - States of affairs
  - Simple names
  - Simple objects
  - World
  - Logical operators
  - Complex propositions
  - Truth tables
  - The nature of logic and *Begriffsschrift*

The Picture Theory

(1) For language to make sense it is necessary that it represents / *pictures* the world.

- There is something in common between language and the world. What this is, and how this something-being-in-common works, is in the *Tractatus* understood along the concept of a *picture*.

(2) The home of sense is the proposition, not the single word (Frege's context principle!); names stand for («vertreten») objects in the world, but it is the whole proposition which *pictures* the world.

- Only a *structure* can picture another structure.

(3) A consequence from (1)-(2) is that we can read off the *structure* of the world from the structure of the propositions of language.

- Independently of whether a proposition pictures an actually *obtaining* state of affairs, or only a possible one – we will always be able to read off from it the *structure* of the state of affairs in question.

The Picture Theory cont.

(4) Logical operators (”all”, ”not”, ”and”, ”if…then”, …) do not stand for (represent) anything, and a negated proposition (e.g. ”It is not raining”) does not picture any other state of affairs than the corresponding positive proposition (”It is raining”).

A complex proposition does not picture any other state of affairs than the states of affairs that are depicted by the single propositions (the elementary propositions) of which it is composed.

- Logical operators /constants/connectives are, according to the *Tractatus*, *purely* logical *operators*; they help us *operate* with our representations of the world. They add no content.

- There are no inherently «disjunctive» propositions, for example. «P v Q» is equivalent to «~(~P & ~Q)».

(5) There are things which language «*cannot*» represent.

(a) The relation of picturing itself

Some of these include what is of value (though they do not belong to the ”world”).

(b) Matters of ethics, aesthetics, religion … in short: ”the mystical” (TLP #6.522)

Attempts at representing (a) lead to either senseless sentences (e.g. the sentences of logic: tautologies) or nonsensical sentences (e.g. when employing ”formal concepts” such as ’object’, ’number’ …);

Attempts at representing (b) lead to nonsensical sentences (cf. «Lecture on Ethics»).

Picturing

- In order for B to be a picture of A, the elements of B must stand to each other in a specific *determinate* relation which represents the relation between the elements of A.

  - It is this internal relation – its ”structure” (”*Struktur*“, TLP #2.15) – which makes B into a picture of A. It is part of this structure, that in B there must be as many distinguishable elements as in A (TLP 4.04).

  - This depicting structure is (made possible through) ”pictorial form” (”Form der Abbildung”, TLP 2.171). A and B have a «Logische Form»/ ”logical form” (TLP 2.18).

  - What is the relation between Pictorial Form, form of representation («Form der Darstellung»), and Logical Form?

Elementary Propositions

- Complex propositions / propositions are built out of simple propositions / elementary propositions.
  - They are built with logical connectives:
  - E.g. «Kevin is American **and** Lene is Norwegian.»
  - They are built with universal quantification: Conjunction of elementary propositions.
    - ”All Norwegians are tall” is equivalent to ”Helle is tall and Rune is tall … and Kjell is tall”.
  - … built with existential quantification: Disjunction of elementary propositions.
    - ”One Norwegian is the tallest of all” is equivalent with ”Helle is the tallest of all or Rune is the tallest of all … or Kjell is the tallest of all”.

Every proposition has one and only one complete analysis - at the end of which we find *elementary propositions* which – through *simple names* - connect with the world.

Language is the totality of propositions. (TLP 4.001)

Analysis of Elementary Propositions

- An elementary proposition is a *possible* combination/concatenation ("Verkettung") of *names.*
- An elementary proposition consists *of nothing but names.*
- An elementary proposition depicts a *possible* relation between simple objects.
- An elementary proposition depicts a state of affairs and contains as many names as there are objects in the state of affairs it depicts. (TLP 4.04)
- Elementary propositions are logically independent from each other. (TLP 5.152) (We'll see why this must be so later.)
- The general form of the elementary proposition is: Such and such is the case. (TLP 4.5)

State of Affairs (Sachverhalt)

- A state of affairs is what an elementary proposition depicts; it correlates with it.
- A state of affairs is a concatenation of simple objects. (TLP 2.01)
- A state of affairs may obtain or not obtain. (TLP 2.06)
- States of affairs are independent of each other. (TLP 2.061)

(This must be so since elementary props are independent of each other.)

- ”Reality” is the obtaining *and* non-obtaining of states of affairs. («Reality» and «World» seem to be different.)
- Cf. ”Sachlage”

Simple Names

- Names are the only components of elementary propositions; they are not further analysable.
  - They connect to the world (it is only with the names that the logical picture connects to the world).
  - They stand directly for (simple) objects: Names represent (in the context of a proposition), while elementary propositions have sense, they do not have *Bedeutung*. (TLP #3.203, #3.3, #3.314)
  - The object for which a name stands is a matter of convention.

- A genuine name must stand for a *simple object* – the object is its reference (”Bedeutung”).
  - TLP 3.203: The name means the object. The object is its meaning.

- If the name didn’t stand for a *simple* object, the proposition in which it occurs would never have determinate sense. Only *determinate* sense is sense. Cf. TLP 2.0211

Simple Objects

- Simple objects are the constituents of states of affairs. They *must* be simple, without parts. (TLP 2.0211) Sense is basic for LW.

- It is essential for a simple object that it can be combined with certain other objects and thus enter into a state of affairs. This seems to be a requirement on the world made by the possibility of representing it in language or thinking about it.

- I.e., a simple object *cannot* occur on its own, it will always occur as combined with other objects. Objects are *not* «monads».

- Simple objects differ from each other.
  - They differ, for example, with regard to the logical form they can enter into (e.g. objects correlating with two-place predicates like ”is the brother of” vs. objects correlating with one-place predicates like ”is bald”).

World

- Simple objects form the substance of the world. (TLP 2.021)
- Substance is what exists independently of what is actually the case. (TLP 2.024) But not of what is potentially the case!
- The substance of the world = the totality of simple objects is unchanging (it is the same in every possible world). What changes, is the way the simple objects combine with each other.
- The general form of the proposition is to give the form of any and all configurations/combinations/concatenation of objects.
- Description of world = List of all elementary propositions + Information which of them are true (-> positive facts) and which of them are false (-> negative facts).

World cont.

- There is no causality in the world (whether in a modern or an Aristotelian sense) TLP 5.1361
  - There is no other necessity than logical necessity! TLP 6.37
  - From the obtaining of one state of affairs it is impossible to infer the obtaining of another! TLP 5.135 (Why is this important?)

Truth tables

- Complex vs. Simple Propositions (elementary propositions)

- Examples of complex propositions:

  - ”Alois speaks *and* Kevin speaks”*:* p & q
  - ”It is *not* raining”*:* ~p
  - ”Alois speaks or Kevin speaks”*:* p v q
  - ”When Kevin speaks everyone listens”: p → q

- Through logical connectives / operators, a complex proposition is composed out of simple propositions.

Truth tables

The truth value of a complex proposition (truth / falsehood) depends on/is a function of the truth values of the simple propositions of which it is composed.

Truth Tables cont.

- By running a complex proposition (e.g. ”p & q”) through the truth table calculus we show how its truth value is a function of the truth values of the simple propositions of which it is composed (e.g. ”p”, ”q”).

- ”&” is *shown* by the T, F, F, F truth value series; ”~” through the F, T truth value series, etc.:

p	&	q		~	p
T		T	T	F	T
T		F	F	T	F
F		T	F		
F		F	F		

- TLP #4.31: The truth-possibilities can be presented by schemata of the following kind ("T" means "true", "F" "false". The rows of T's and F's under the row of the elementary propositions mean their truth-possibilities in an easily intelligible symbolism).
- TLP #5.01: The elementary propositions are the truth-arguments of propositions.

Truth Tables

- The *Tractatus* conceives of a complex propositions as consisting of the elementary propositions of which it is composed. The truth value of the complex proposition is a function of the truth values of the elementary propositions of which it is composed.

- As soon as the truth value of the elementary propositions is known, the truth value of the complex propositions can be calculated through the truth tables.

- The logical connectives/operators can be defined through and reduced to their truth tables)

The Nature of Logic

- Logic (as a field) tells us nothing about the world and in the end it can only collect tautologies. Tautologies are complex propositions whose truth value is always *True;* they are really not ”propositions” in the proper sense. They are senseless.
  - “It rains or it rains not” is allowable as a sign, but cannot be false.
- Traditional (Aristotelian) laws of logic, such as the law of excluded middle [p v ~p] and the law of non-contradiction [~ (p & ~p)] can be shown to be tautologies.
- Propositions which contain *formal concepts* are ”unsinnig”. This is related to the issue of representing logical form.
  - Examples for formal concepts include ”object”, ”complex”, ”number” (TLP #4.126ff) This is *shown* in the symbolism.
  - TLP #4.1272: So one cannot say, *e.g.* “There are objects …”

Cf. *Notes dictated to Moore (*1914)

- Cf. what Wittgenstein already in 1914 had said to G. E. Moore (Notes dictated to G. E. Moore in Norway 1914):

  Logical so-called propositions *shew* [the] logical properties of language and therefore of [the] Universe, but *say* nothing.

  This means that by merely looking at them you can *see* these properties; whereas, in a proposition proper, you cannot see what is true by looking at it.

  It is impossible to *say* what these properties are, because in order to do so, you would need a language, which hadn't got the properties in question, and it is impossible that this should be a *proper* language. Impossible to construct [an] illogical language.

On Nonsense: Carnap

- "Caesar is and", "Caesar is a prime number“: The first proposition is syntactically incorrect. The second is syntactically correct, but, according to Carnap, a misuse of language and nonsense: "Prime number" is a property of numbers, not of persons. The second proposition is a case of confusion of spheres („Sphärenvermengung“), a category mistake. … „Scheinsätze dieser Art finden sich besonders häufig z.B. bei HEGEL und bei HEIDEGGER … “ (R. Carnap, „Überwindung der Metaphysik durch logische Analyse der Sprache“ 1931; engl. 1959)

- What does Carnap‘s identification of nonsense assume?

- How does the *Tractatus*‘ critique of language and metaphysics relate to Carnap‘s?

- Sign/Symbol distinction

- Russell: Certain combinations of signs are to be excluded from language as ”nonsensical”, e.g. ”The class of all humans is a human”. The explanation/justification for the exclusion of this phrase is provided for by the theory of types.

- The *Tractatus* disagrees with Russell’s ”legislating” against the confusion of different types (which, according to Russell, is at the bottom of ”Russell’s paradox” and other antinomies). Instead, the *Tractatus* proposes a perfect descriptive symbolism which *shows* that what Russell wants to prohibit with his ”theory of types” never arises at the level of symbol anyway.

Nonsensical combinations are, on the level of symbol, *already* excluded from language, they are not allowed. On the level of logical syntax Russell's paradox, for example, does not arise; the «Begriffsschrift» prevents us from constructing it. Thus, to *try* to exclude certain combinations of signs does not make sense: It amounts to trying to *say* that something should not be possible which language itself (through logic) already has excluded, *shows* not to be possible. TLP 3.33 – 3.334

The *Tractatus*' response to Russell's "theory of types" develops into the distinction between what can be said and what can be shown only. This distinction is crucial for the *Tractatus* and is relevant first of all for the *Tractatus*' understanding of logic. Logic is, according to the *Tractatus*, something which is shown in every use of language rather than a result from normative action (as Russell's exclusion of certain phrases from language amounts to).

Cf. TLP 5.473 «Logic must look after itself.» Nothing inherently wrong with «Socrates is identical.»

TLP 5.4733

Frege says: Every legitimately constructed proposition msut have a sense; and I say: Every possible proposition is legitimately constructed, and if it has no sense this can only be because we have given no *meaning* to some of its constituent parts.
(Even if we believe that we have done so.)
Thus "Socrates is identical" says nothing, because we have given *no* meaning to the word "identical" as *adjective*. For when it occurs as the isng of equality it symbolizes in an entirely different way -- the symbolizing relation is another -- therefore the symbol is in the two cases entirely different; the two symbols have the sign in common with one another only by accident.

Cf. TLP 5.5563 «In fact, all the propositions of our everyday language, just as they stand, are in perfect logical order.»

Questions answered

- How can we *mean* something with language? (sense)
- How can we *refer* to something with language? (reference)

- Are there propositions which are meaningful and true? (yes)
- Are there propositions which are meaningful and false? (yes)

- Are there propositions which are true, but senseless? (yes)
- Are there propositions which are false and senseless? (yes)
- Are there propositions which are false and nonsensical? (no)

- Are there propositions which are true and nonsensical? (no, yes)

Reflection

- Wittgenstein inherits from Frege and Russell the view that logic is an apt instrument for analyzing and understanding not only mathematics, but also language

  - Logic as *the* tool for analyzing and understanding language and for dealing with philosophical confusions.

Reflection

- (1) The «logic-view» of language leads Wittgenstein to portray language as built upon a well organized and well defined logical system that allows it to picture the world.
  - Picture theory of the relation between language and world
- (2) At the same time, Wittgenstein seems to acknowledge that important areas of our language and life, including the world, and logic *itself*, are not expressable through logic and thus not representable in his logical system.
- Cf. TLP 6.4 - 6.54
  - That ethics and aesthetics are not representable in this system, he understood early. Perhaps it was his WWI experience that made him include remarks about them in this work. What he intended here is a matter of fierce debate.

Reflection

- Wittgenstein acknowledges the tension between (1) his account of logic and language and (2) our actual use of language in ordinary life, especially in ethical, aesthetic and religious practices, as well as in talk about logic itself.

- He does not want to do away with either of the two. The tension between them has engaged much of Wittgenstein scholarship and continues to create vivid debates around the *Tractatus*.

- (1) makes Wittgenstein one of the most important sources of early analytic philosophy (of language); (2) connects him with traditions such as «Continental» philosophy.

How to Read the *Tractatus*: «The *Tractatus* Wars»

- Do propositions of ethics, aesthetics, religion - but also logic - convey truth in any way? According to (1), they *cannot* – but still, they seem to state something important and true, even though not in logically correct ways?

- Can the tension between (1) and (2) be solved?

- Is there any way in which we can communicate about that which cannot be said but can only be shown?