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Introduction to Wittgenstein

4th lecture 11.9.2018:
The picture theory

Today's program

- 1) Stock-taking and outlook
- 2) Basics of the picture theory

Stock-taking and outlook

Frege & Russell	Tractatus
Frege and Russell want to found our (scientific) knowledge, incl. mathematics, on logic .	Logic is <i>not</i> the most general truths about the world. It is nothing but the formal properties of scientific and any other knowledge, the structure of knowledge itself. Thus, logic is not more fundamental than knowledge and cannot therefore be the basis for it. Logical analysis can however show us the true structure of our knowledge, thought and language.
F. distinguishes between sense («Sinn») and reference («Bedeutung») . Sentences have sense <i>and</i> reference. Names have reference only in the context of a sentence (context principle). (Cf. semiotic triangle! The relation between symbol and referent is mediated by the <i>thought</i> ; ≠ Russell.)	The distinction is fine and important - but only names refer (as part of a proposition), and only propositions have sense. Propositions do not refer.
F. utilizes for his analysis of language the mathematical notion of function. The true grammar of our language (all languages! all thinking!) is not «Subject + predicate ...», but function (function, argument, function value ...). Concepts (e.g. «Finnish professor of philosophy at UiB») are «incomplete» or «unsaturated» and don't refer until they become saturated through combination with a name (e.g. «Simo Säätelä», «Alois Pichler»).	The utilization of the notion of function for our analysis of language is good. But "function" is not enough – in order to understand how language works we also need the notion of "operation".
F. introduces the «Begriffsschrift». R. wants to impose «Begriffsschrift» as an external norm for how to speak and think rightly.	«Begriffsschrift» is good. But the Begriffsschrift is nothing which would be external to our language and thought (≠ Russell). Begriffsschrift is internal (= Frege). We cannot step outside our thinking; this is however no problem since the norm for good thinking and speaking is embedded in thinking and speaking itself, and the Begriffsschrift only shows how we think and talk «depth grammar»-wise.
R. promotes logical analysis as method for critique of language and philosophy.	Critique of language and philosophy is fine, but N.B.: On the basis of bi-polarity and truth-function based logical analysis the language of the critique itself turns out to lack sense! Most (all?) sentences of our language including the sentences with which we try to address the «most important» things turn on logical analysis out to lack sense!
R. says: The proposition as analysed represents reality.	➤ «Picture theory»

Atomic propositions

The thinking behind the picture theory, in brief

My *whole* task consists in explaining the nature of the proposition.

(NB p. 39, 22.1.1915)

- 1)The nature of the proposition consists in being about something.
- 2)Being about something is to represent this something.
- 3)The most natural way for A to represent B is for A to resemble B, to be a «picture» of B.
- 4)In order for A to be a picture of B, A needs to have something in common with B.
- 5)This «what picture A and pictured B have in common» needs to be a structure, a form.
- 6)This shared form we call «pictorial form» / «logical form».
- 7)The logical form can be extracted from A – we can infer from the structure of A the structure of B. The logical form is however not A's *surface* form, but A as logically analyzed.
- 8)A represents B – A says something about B - thanks to logical form, but A cannot represent / say something about the logical form itself – the latter *shows* itself.
- 9)Logical analysis shows that there must be sentences of the simplest possible structure (“elementary / atomic propositions”) – from this we can derive that there also must be elementary «Sachverhalte».
- 10)...

... Es ist also kein Lehrbuch.—Sein Zweck wäre erreicht, wenn es einem, der es mit Verständnis liest, Vergnügen bereitere.

The «links» of the Tractatus «chain» - with the «picture theory» as mediator between metaphysics and philosophy of language / logic	Ramsey & Ogden translation (1922)*	Pears & McGuinness translation (1961)
<ol style="list-style-type: none"> 1. Die Welt ist alles, was der <u>Fall</u> ist. 2. Was der <u>Fall</u> ist, die <u>Tatsache</u>, ist das Bestehen von Sachverhalten. 3. <u>Das logische Bild der Tatsache</u> ist der <u>Gedanke</u>.* 4. Der <u>Gedanke</u> ist der sinnvolle <u>Satz</u>. 5. Der <u>Satz</u> ist eine <u>Wahrheitsfunktion</u> der Elementarsätze. (Der Elementarsatz ist eine Wahrheitsfunktion seiner selbst.) 6. Die allgemeine Form der <u>Wahrheitsfunktion</u> ist: $[\bar{p}, \bar{\xi}, N(\bar{\xi})]$. Dies ist die allgemeine Form des Satzes. 7. Wovon man nicht sprechen kann, darüber muß man schweigen. <p>der Fall sein-Tatsache-(logisches Bild)- Gedanke-Satz-Wahrheitsfunktion</p>	<ol style="list-style-type: none"> 1. The world is everything that is the <u>case</u>. 2. What is the <u>case</u>, the <u>fact</u>, is the existence of atomic facts. 3. The logical picture of the <u>facts</u> is the <u>thought</u>. 4. The <u>thought</u> is the significant <u>proposition</u>. 5. <u>Propositions</u> are <u>truth-functions</u> of elementary propositions. (An elementary proposition is a truth-function of itself.) 6. The general form of <u>truth-function</u> is: $[\bar{p}, \bar{\xi}, N(\bar{\xi})]$. This is the general form of proposition. 7. Whereof one cannot speak, thereof one must be silent. <p>* Quotes from the Tractatus follow, if not indicated otherwise, the Ogden & Ramsey translation.</p>	<ol style="list-style-type: none"> 1. The world is all that is the <u>case</u>. 2. What is the <u>case</u>—a <u>fact</u>—is the existence of states of affairs. 3. A logical picture of <u>facts</u> is a <u>thought</u>. 4. A <u>thought</u> is a <u>proposition</u> with a sense. 5. A <u>proposition</u> is a <u>truth-function</u> of elementary propositions. (An elementary proposition is a truth-function of itself.) 6. The general form of a <u>truth-function</u> is: $[\bar{p}, \bar{\xi}, N(\bar{\xi})]$. This is the general form of a proposition. 7. What we cannot speak about we must pass over in silence.

... but now, after all, to the
Lehrbuch part 😊

Basics of the picture theory

The picture theory - in short

- 1) Only a structure can represent another structure - therefore it is (in language) only a sentence which can represent, and therefore (Frege's context principle!) it is only in the context of a sentence that words have reference («Bedeutung»).
 - The «simple names» of a sentence don't represent (they are undividable and un-structured); they refer - in the context of the sentence - to «simple objects».
 - Sentences have sense («Sinn»), simple names have only reference («Bedeutung»).
- 2) The natural form of representation is the picture; but representation can also take the form of *projection* («Abbildung» in the *mathematical* sense).
 - TLP #3.12: *Das Zeichen, durch welches wir den Gedanken ausdrücken, nenne ich das Satzzeichen. Und der Satz ist das Satzzeichen in seiner projektiven Beziehung zur Welt. [The sign through which we express the thought I call the propositional sign. And the proposition is the propositional sign in its projective relation to the world.]*
- 3) That what makes it possible that a sentence can represent, is logical structure, *logical form* – the form that is shared between the sentence / the picture and the represented / the depicted.
- 4) What is this something which is represented / depicted? It is a *Sachverhalt* (if the picture is an atomic picture - in language: an «elementary / atomic proposition») or a *Sachlage* (if the picture is a molecular picture - in language: a «molecular proposition»).
- 5) Language consists in its fully analysed form of nothing but elementary propositions (atomic structures) + molecular propositions (molecular structures) - the latter being nothing but elementary propositions brought together by logical operations.
- 6) The logical connectives don't picture - and they don't refer to anything either. Thus, there is nothing on the level of the *world* which would correspond to a true molecular proposition, except the single *Sachverhalte* which correspond with the single elementary propositions that the molecular proposition is composed of.

The picture theory - in short

- 6) Since language *depicts* possible or actually obtaining states of affairs and *shares* with them logical form, we can read off the structure of the world from the structure of (the elementary propositions of) language.
- 7) An obtaining state of affairs = a fact, «Tatsache»
 - Independent of whether a sentence pictures an actual fact or only a state of affairs (which may *not* obtain, not be a *fact*) – we will always be able to read off from the sentence the *structure* of that state of affairs.
- 8) Since logical operators ("all", "not", "and" ...) do not refer and do not represent/picture, a negative sentence (e.g. "It does not rain") – which already results from an operation (negation)! - does not picture any other state of affairs than the corresponding positive sentence ("It rains").
 - Logical constants in the understanding of the Tractatus are indeed logical *operators*; with them we *operate* on our pictures of the world.
 - There is no necessity and causality in the world – only in our thought and language.
- 9) Things which are not states of affairs proper cannot be depicted and fall therefore outside of the realm of meaningful language:
 - a. The relation of picturing itself. (Only what is independent of A can be pictured / said by A.)
 - 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).

Pictorial form and logical form

- In order for A to be a picture of B, the elements of A must stand to each other in a *determinate* relation – this relation represents the determinate relation between the elements of B.
 - It is this internal relation – its ”structure” (”Struktur“, TLP #2.15) – which makes A into a picture of B. It is part of this structure that in A there must be as many distinguishable parts as in B (TLP #4.04).
 - This depicting structure is (made possible through) ”pictorial form” (”Form der Abbildung“, TLP #2.171). A and B have a common pictorial form / ”logical form” (TLP #2.18).

Isomorphy

- Isomorphy (structural identity): An elementary proposition and the state of affairs it depicts share the same logical structure. Therefore, we can from language, as logically analyzed, infer the structure of the world.
 - $F(a)$ Property(Name) \rightarrow Object a has property F
 - aRb NameRelationName \rightarrow Object a stands in Relation R to Object b
 - aRb Object-NameRelation-NameObject-Name?
- Logical analysis shows the structure of the world.
- That's why the TLP can say: 1. Die Welt ist alles, was der Fall ist. 2. Was der Fall ist, die Tatsache, ist das Bestehen von Sachverhalten. ...
- So, we derive from language (in its logically analysed form) the structure of the world. And vice versa: **What language (logical analysis) cannot represent (in determinate ways!) – cannot be (said to be) part of the world!**

Elementary proposition

- Language is the total of propositions. (TLP #4.001)
- 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.
- Molecular sentences / propositions are built out of atomic sentences / elementary propositions.
 - ... built with logical connectives
 - ... built with universal quantification: Conjunction of elementary propositions.
 - "All Norwegians are tall" is equivalent with "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".*

*N.B.: "Helle is tall", "Helle is the tallest of all" etc. are *not* examples of elementary propositions.

Elementary proposition

- An elementary proposition is not any sequence of words but a *logically possible* combination / concatenation (“Verkettung”) of *nothing but names*.
- 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)
- An elementary proposition depicts a possible relation between simple objects, and is thus capable of being true or false.
 - Bipolarity: A genuine proposition has two poles - the *truth-values* Truth and Falsehood.
 - Tautologies are not bipolar and therefore not (genuine) propositions. “It rains or it rains not” cannot be false.
- Elementary propositions are logically independent from each other. (TLP #5.152)
- The general form of the elementary proposition is: *Es verhält sich so und so.* [*Such and such is the case. / This is how things stand.*] (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 may obtain or not obtain, and this is shown by the correlating elementary proposition being true or not.
- A state of affairs is a concatenation of simple objects.
- States of affairs are independent of each other. (TLP #2.061)
- “Reality” is the obtaining and non-obtaining of states of affairs.
- “Sachlage” is a complex of «Sachverhalte»?

(Simple) Name

- Names are the only components of elementary propositions; they are not further analysable.
 - If aRb is the placeholder for an elementary proposition, then R must be the placeholder for a simple *name*.
 - Simple names connect with the world - it is *only* with the names that the sentence connects with the world.
 - Simple names refer directly to (simple) objects: names refer (but only in the context of a proposition) - elementary propositions as a whole have sense, but do not refer. (TLP #3.203, #3.3, #3.314)
 - To which object a name refers is a matter of convention.
 - TLP #3.203: *The name means the object. The object is its meaning.*
- Names must refer to *simple* (not complex) objects. If the name didn't refer to a *simple* object, its reference would not be determined, and the proposition in which it occurs would never have *determinate* sense.
- That's why there cannot be structure within a simple name / simple object.

Simple object ("einfacher Gegenstand")

- Simple objects are the constituents of states of affairs. They *must* be simple, without parts. (TLP #2.02)
 - The configuration of the objects forms the atomic fact [Sachverhalt]. (TLP #2.0272)
- Simple objects can differ from each other.
 - For example with regard to the logical form they can enter into. Cf. objects correlating with two-place predicates like "is the brother of" vs. objects correlating with one-place predicates like "is bald".
- It is *essential* for a simple object that it can be combined with certain other objects and thus enter into a state of affairs. Thus, a simple object *cannot* occur on its own, it will always occur as combined with other objects.
- **Space, time, colour (colouredness) are forms of objects.** (TLP #2.0251) But also see TLP #2.0232: **Roughly speaking: objects are colourless.**

Thus, also relations and properties can be simple objects?

Ms-102,147r on <http://wittgensteinonline.no/>:

Die Frage ist eigentlich die: Muß ich, um die syntaktische Behandlungsweise eines Namens zu kennen, die Zusammensetzung seiner Bedeutung kennen?, wenn ja so drückt sich die ganze Zusammensetzung auch schon im unanalysierten Satze aus. ... –

Ms-102,147r

(Man versucht oft, zu große Gedankenklüfte zu überspringen und fällt dann mitten hinein.)

Das was uns a priori gegeben scheint ist der Begriff: Dieses. – Identisch mit dem Begriff des Gegenstands.

Auch Relation und Eigenschaften etc. sind Gegenstände.

Meine Schwierigkeit besteht doch darin: In allen mir vorkommenden Sätzen kommen Namen vor welche aber bei weiterer Analyse wieder verschwinden müssen. Ich

Ms-102,148r

weiß daß eine solche weitere Analyse möglich ist bin aber nicht im Stande sie vollständig durchzuführen. Trotzdem nun weiß ich allem Anscheine nach daß wenn die Analyse vollständig durchgeführt wäre, ihr

«Simo is tall» (if an elementary proposition) would thus contain two names which refer to two objects: the one corresponding with «Simo», the other one corresponding with «Tall».

«Substance of the world»

- Simple objects form the substance of the world. (TLP #2.021)
- Substance is what exists independently of what is the case. (TLP #2.024)
 - The substance of the world = the sum of simple objects is eternal, unchangeable and thus the *same* in every possible world. What changes, is the way the simple objects combine with each other.

Facts and World

- The general form of the proposition is: **This is how things [simple objects] stand.** (TLP #4.5, Pears-McGuinness translation)
 - The general form of the proposition is to describe (*describe!*) a certain configuration / combination / concatenation of objects.
 - What about questions? imperatives? exclamations? ...
- **The simplest, most atomic proposition - the elementary proposition - asserts the existence of an atomic fact [Sachverhalt].** (TLP #4.21)
- Cf. NB p. 39, 22.1.1915: **My whole task consists in explaining the nature of the proposition.**

Facts and World

- N.B.: Even if simple objects form the substance of the world – the world is the totality of *facts*, not of *objects* (TLP #1.1).
- Positive fact ("Tatsache"): the obtaining of a state of affairs / a state of affairs which obtains (?)
 - Simo is from Finland
- Negative fact: the non-obtaining of a state of affairs / a state of affairs which does not obtain (?)
 - ~ Alois is from Finland
 - Remember: Nothing in the world corresponds to the negation sign; to both p and not-p corresponds the same state of affairs (TLP #4.0621).

Facts and World

- Description of world = List of all elementary propositions + Information which of them are true (-> positive facts) and which of them are false (-> negative facts).
- There is no causality in the world (whether in a modern or an Aristotelian sense); no good or bad ... only *atomic facts*.
- In the same way as states of affairs, are also facts independent of each other.
 - No other necessity than logical necessity!
 - From the obtaining of one state of affairs it is impossible to infer the obtaining of another!

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

molecular proposition (zusammengesetzter Satz)	a group of states of affairs (Sachlage?)
elementary proposition (Elementarsatz) [sense]	state of affairs (Sachverhalt)
true elementary proposition (wahrer Elementarsatz) [truth]	fact (Tatsache)
name (einfaches Zeichen, Name) [have reference only in the context of an elementary proposition]	simple object (einfacher Gegenstand)