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FIL217 / FIL317- *Wittgenstein  
studies*

20.9.2017

From the Tractatus to the  
Philosophical Investigations



# ”Can you give me an example ...?”

- The *Tractatus* doesn't give a single example of a simple object.
- The *Tractatus* doesn't give a single example of an elementary proposition.
- Our everyday language sentences are not elementary propositions:
  - They contain hidden or explicit logical operators.
  - They contain complex expressions referring to complex objects.
  - They are typically not logically independent of each other.
  - A great many of them are not truth value capable.
  - With some of them it is not at all clear what their structure is or whether they at all have a structure („Hi!“).

# Colour statements: candidates for elementary propositions?

- Sense-data statements:
  - «Here red»
  - «There green»
  - «This heavy»
  - «Here pain»
  - ...
- Could it be that sense-data statements are elementary propositions?
  - «This is red», «This is green» ...

# Colour exclusion as an example of logical impossibility

TLP 6.375

•Just as the only necessity that exists is *logical* necessity, so too the only impossibility that exists is *logical* impossibility.

TLP 6.3751

•For example, the simultaneous presence of two colours at the same place in the visual field is impossible, in fact logically impossible, since it is ruled out by the logical structure of colour.

•Let us think how this contradiction appears in physics: more or less as follows – a particle cannot have two velocities at the same time; that is to say, it cannot be in two places at the same time; that is to say, particles that are in different places at the same time cannot be identical.

•(It is clear that the logical product of two elementary propositions can neither be a tautology nor a contradiction. **The statement that a point in the visual field has two different colours at the same time is a contradiction.**)

# Colour exclusion as an example of logical impossibility

## TLP 6.375

- Wie es nur eine *logische* Notwendigkeit gibt, so gibt es auch nur eine *logische* Unmöglichkeit.

## TLP 6.3751

- Daß z.B. zwei Farben zugleich an einem Ort des Gesichtsfeldes sind, ist unmöglich, und zwar logisch unmöglich, denn es ist durch die logische Struktur der Farbe ausgeschlossen.
- Denken wir daran, wie sich dieser Widerspruch in der Physik darstellt: Ungefähr so, daß ein Teilchen nicht zu gleicher Zeit zwei Geschwindigkeiten haben kann; das heißt, daß es nicht zu gleicher Zeit an zwei Orten sein kann; das heißt, daß Teilchen an verschiedenen Orten zu Einer Zeit nicht identisch sein können.
- (Es ist klar, daß das logische Produkt zweier Elementarsätze weder eine Tautologie noch eine Kontradiktion sein kann. **Die Aussage, daß ein Punkt des Gesichtsfeldes zu gleicher Zeit zwei verschiedene Farben hat, ist eine Kontradiktion.**)

# The colour exclusion problem and its consequences, in 7 steps

- 1) The truth values of elementary propositions are independent of each other.
- 2) Since colour statements can stand in a relation of mutual exclusion to each other, they cannot be elementary propositions.
- 3) Since colour statements cannot be elementary propositions, they must be analysable into simpler propositions and their analysis must eventually yield elementary propositions.
- 4) If the analysis of colour statements into elementary propositions cannot be successfully achieved, we may want to recognize the colour statements themselves as elementary propositions.
- 5) Now, it seems indeed to be the case that colour statements cannot be analysed further into elementary propositions (that are independent of each other); therefore we should conceive of the colour statements themselves as elementary propositions.
- 6) But then the colour statements are elementary propositions which are *not* independent from each other!?
- 7) If at least some elementary propositions are not independent from each other, we may just as well through the whole concept of elementary proposition over board!?

No longer elementary  
propositions ...



A whole lot is being  
thrown over board!



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

Language (Sprache)	World (Welt)
complex proposition (zusammengesetzter Satz)	a group of states of affairs (Sachlage?)
<b>elementary proposition (Elementarsatz) [sense]</b>	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)

# The colour exclusion problem (premiss 1)

- Elementary propositions are logically independent of each other; they cannot exclude each other.
- Therefore mutually exclusive color statements cannot be elementary propositions.
- If they cannot be elementary propositions, they must be further analyzable (TLP #4.211, #6.3751).
- **(1) In the end, the analysis of “a is red” must yield elementary propositions.**

# The colour exclusion problem in the Tractatus (premiss 2)

- Some color statements are mutually exclusive: “a is red” excludes “a is green”.
- There is only *logical* necessity / impossibility; therefore the analysis must show that the mutual exclusion of “a is red” and “a is green” is of a logical kind.
- The logical product of color statements such as “a is red” and “a is green” must amount to a *logical contradiction*.
  - “a is red & a is green” must be a logical contradiction.
- **(2) Logical analysis must show that the logical product of “a is red” and “a is green” is something like “a is red and a is not red” – thus a logical contradiction.**

# *Some Remarks on Logical Form* (1929)

- Logical analysis shall show that
  - (1) “a is red” can be analyzed into an elementary proposition
  - (2) “a is red & a is green” is a logical contradiction
- *Some Remarks on Logical Form* (SRLF) undertakes the logical analysis of color statements.
- But SRLF does not succeed
  - in showing that “a is red” and “a is green” are mutually exclusive on the basis of logical syntax alone, and thus, in showing that their logical product amounts to a logical contradiction.
  - in showing that color statements are composed of simpler statements that lead to elementary propositions which are *independent* of each other.

# *Some Remarks on Logical Form*

- If color statements cannot be analyzed further into statements that lead to elementary propositions - are they maybe themselves elementary propositions? We may try to answer Yes. But ...
- ... if colour statements are elementary propositions, what about the *independency* view of elementary propositions?
  - Then at least some elementary propositions are mutually exclusive and not independent of each other!
- Three Tractatus views are at stake:
  - The *independency* view of elementary propositions
  - The view that elementary propositions are *simple*
  - The view that logic “must take care of itself” (TLP #5.473)
    - We seem to need more than logical necessity / possibility only! On the basis of logical syntax / logical analysis alone we cannot show how color statements can exclude each other!

# Conclusions from the colour exclusion problem

- SRLF concludes that color statements such as “a is red” and “a is green” must be regarded themselves elementary propositions, but then
  - elementary propositions can be mutually exclusive (“a is red” and “a is green” exclude each other for “phenomen(ologic)al” impossibility)
    - There is no longer only logical impossibility
  - elementary propositions, states of affairs and facts are no longer independent of each other
  - elementary propositions are no longer *simple*
    - Colour statements can be analyzed further into statements of colour degree, and propositions ascribing degree are not simple
- **The *Tractatus* conception of elementary propositions can just as well be given up!?**

Want more problems?

# Some questions to the Tractatus

- Was nun Ihre eigene Schrift anbetrifft, so nehme ich gleich an dem ersten Satze Anstoss. Nicht, dass ich ihn für falsch hielte, sondern weil mir der Sinn unklar ist. "Die Welt **ist** alles, was der Fall ist". Das "ist" wird entweder als blosser Copula gebraucht, oder wie das Gleichheitszeichen in dem volleren Sinne von "ist dasselbe wie". Während das "ist" des Nebensatzes offenbar blosser Copula ist, kann ich das "ist" des Hauptsatzes nur in dem Sinne eines Gleichheitszeichens verstehen. Bis hier ist, glaube ich, kein Zweifel möglich. Aber ist die Gleichung als Definition zu verstehen? Das ist nicht so deutlich. Wollen sie sagen: "Ich will unter 'Welt' verstehen alles, was der Fall ist? Dann ist "die Welt" der erklärte Ausdruck, "alles was der Fall ist" der erklärende. In diesem Falle wird nichts damit behauptet von der Welt oder von dem, was der Fall ist, sondern, wenn etwas behauptet werden soll, so ist es etwas über den Sprachgebrauch des Schriftstellers. Ob und wieweit dieser etwa mit dem Sprachgebrauch des Lebens übereinstimme, ist eine Sache für sich, auf die aber für den Philosophen wenig ankommt, nachdem er seinen Sprachgebrauch einmal festgestellt hat. ... (Frege in a letter to Wittgenstein. In: Ludwig Wittgenstein: Gesamtbriefwechsel/ Complete Correspondence. Electronic Edition, 3.4.1920, IntelLex <http://pm.nlx.com>)



# N. Malcolm, *Ludwig Wittgenstein* *A Memoir*, p.70

- "I asked Wittgenstein whether, when he wrote the *Tractatus*, he had ever decided upon anything as an *example* of a 'simple object'. His reply was that at that time his thought had been that he was a *logician*; and that it was not his business, as a logician, to try to decide whether this thing or that was a simple thing or a complex thing, that being a purely *empirical* matter! It was clear that he regarded his former opinion as absurd."

# World vs. Reality

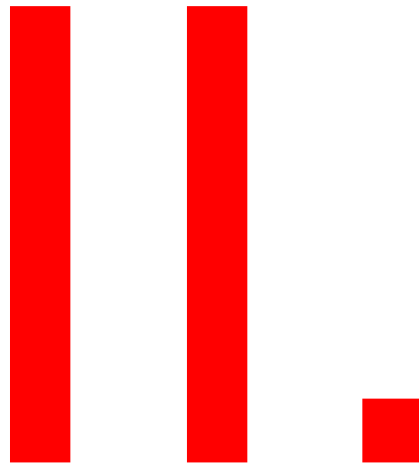
- TLP #2.04: The totality of existent atomic facts is the world.
- TLP #2.06: The existence and non-existence of atomic facts is the reality.
- TLP #2.063: The total reality is the world.
- From #2.04 and #2.06 one is tempted to conclude that "world" denotes a subset of "reality" – but this seems contradicted by #2.063.

# ”Nonsense”

- TLP #4.124, #5.5351, #6.54: Attempts at describing the logic of our language – though important they may be – are condemned to fail to make sense since they attempt at *saying* what only can be shown: what *can* be shown of the ”Gerüst der Welt” is shown by every use of language.
  - The sentences of logic, mathematics, the foundations of the natural sciences, ethics and philosophy are all ”pseudo-propositions” (either senseless or nonsensical).
- Tautologies (and contradictions) are senseless (”sinnlos”).
- Sentences which contain formal concepts are nonsensical (”unsinnig”).
  - Examples for formal concepts include ”object”, ”complex”, ”number” (TLP #4.126ff)
  - TLP #4.1272: *So one cannot say, e.g. “There are objects ...”*
- Sentences which contain value concepts are nonsensical (”unsinnig”).
- A proposition is nonsensical if it contains a sign without meaning. (TLP #5.4733)

# ”Nonsense”

- Russell, in his preface to TLP: “... Mr Wittgenstein manages to say a good deal about what cannot be said ...”
- Is the context-principle part of the ladder to be thrown away? (TLP 3.3 a.o.)
- Is the sign-symbol distinction part of the ladder to be thrown away? (TLP 3.32 a.o.)
- ...



# From the Tractatus to the later philosophy: "meaning" re-visited

- From exactness to acceptance of vagueness
  - From reference to rules
  - From rules to practice

Some of the background behind  
the Tractatus: The search / interest  
for exact language.

A fact about ordinary language

Typically, the meaning of expressions and phrases of everyday language is vague, ambiguous and context dependent.



# Science

«But science  
("Wissenschaft") needs  
exactness!»

# Vagueness, ambiguity, context dependency

- Vagueness → vague meaning
  - "There are **about** thirty people in this room",  
"She is a **good** student"
- Ambiguity → a range of meanings
  - The expression "**is**", "Die **Bank** ist teuer" ...
- Speaker context dependency → meaning is context dependent
  - Deictic expressions, : «this», «here», «now», «I», «tomorrow» ...

# Context dependency vs. Proper names and definite descriptions

«Thank God: Ordinary language also includes some not speaker context dependent proper names and definite descriptions!»

- «Kevin Cahill», «Roma», "The Finnish professor of philosophy in Bergen" ...

# *Exact* language: A possible way out?

- «We need exact language; let's create it.»
- Or (Frege!): «Let's make the exactness, that actually already is *inherent* in our existing language (in our **thought**), explicit in a *Begriffsschrift*.»
- «In such an exact *Begriffsschrift*, we must be maximally *formal* and should as little as possible have to stress with messy contents.»
  - An artificial and formal language, a **logical syntax**.  
*Syntax* rather than semantics!

# «We need an exact language that ...»

- is context independent
- permits exact operations on the basis of logical syntax alone
- can in principle be processed by machines!
  - An artificial language («Artificial intelligence»!)
- is as much as possible a *calculus: a formal system with exact rules for how to process signs*
- establishes the truth of complex propositions on the basis of their *logical form alone*\*
  - *The Tractatus' truth tables calculus!*

\*NB: The truth of the elementary proposition is of course not a matter of their logical form, while the truth of the laws of logic (tautologies) entirely is!

# Promotion of logical syntax is *one* ambition / tendency in the *Tractatus*

TLP #3.317

... Die Festsetzung wird also nur von Symbolen, nicht von deren Bedeutung handeln.

Und *nur* dies ist der Festsetzung wesentlich, *daß sie nur eine Beschreibung von Symbolen ist und nichts über das Bezeichnete aussagt.*

... 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.*

TLP #3.33

In der logischen Syntax darf nie die Bedeutung eines Zeichens eine Rolle spielen; sie muß sich aufstellen lassen, ohne daß dabei von der *Bedeutung* eines Zeichens die Rede wäre, sie darf *nur* die Beschreibung der Ausdrücke voraussetzen.

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.

# So, how does it work?

- Create a calculus for identifying the truth value of a complex sentence purely on the basis of running the distribution of truth values for the simple sentences it is composed of.
  - Presupposition: If it shall be possible to distribute the truth values of the simple sentences arbitrarily, then the simple sentences (elementary propositions) must be logically independent from each other.
- By running a complex sentence (e.g. "p & q") through the truth table calculus we *show* how its truth value series results from the truth values of the simple sentences it is composed of (i.e. "p", "q").

– "&" is shown by the T, F, F, F truth value series :

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

"~" is shown by through the F, T truth value series:

~	p
F	T
T	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).
- See TLP #5.101 for all (16!) possible truth value series for two elementary propositions p and q.

# Problems?

- Well, no problem – as long as the concept of elementary proposition is presupposed and does its work as it is introduced in the *Tractatus*: esp.: the elementary propositions do in no way exclude or include each other.
- But what happens if they *do*? I.e. if p and q actually exclude each other on the basis of their meaning, like for example colour statements can exclude each other?
- Replace "p" with «This is red», and q with «This is green»:

$$\frac{p}{T} \quad \frac{\&}{T?} \quad \frac{q}{T}$$

- «a is red» *could* be thought of as a candidate for elementary proposition. But, according to the *Tractatus*, it cannot be an elementary proposition precisely because of the exclusion problem.



# The colour exclusion problem

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# From reference to rules

- Tractatus: Sense comes from elementary propositions composed of names which **refer** to simple objects in the world.
- If there are no elementary propositions – how are sense and meaning accounted for?
- "Middle period": Meaning is established through language-internal **rules** rather than language-external **reference**.
- The meaning of a sentence does not come from reference to objects, but from a system of linguistic rules.

# The chess analogy

- The meaning of a chess figure does not come from a relation of representation (picture theory!), but from a chess-internal system of rules.
  - What would a chess figure represent?
- The rules of chess are purely conventional and not bound by reference to ontological entities.
- Not even ostensive definition ("This is ...") is bound by a language-external world.
  - Ostensive acts take place within a system of language and its rules.
- Language is autonomous and independent of the world.

# From rules to practice\*

- The "Meaning is rules"-view can be challenged on the basis of the "Rules regress" and the "Authority regress" problems.
- Rules regress: If not through reference to the language-external world – where do the words and sentences get their meaning from? From rules. But what rules the rules? Rules? And what rules the rules which rule the rules? Rules. ...?
- Authority regress: Who decides *which* rules? Rules can be agreed upon and changed (they are conventional) – but on the basis of what authority? And if one is supposed to follow rules – on what basis? Where does the authority come from? ?
- Wittgenstein's response to this challenge leads to his "Primacy of practice"- and "Meaning is use"-views.

\* According to Newen & von Savigny, *Analytische Philosophie: Eine Einführung*, 1996; p. 92f

Back to the messy contents of  
everyday language!