

# A. Pichler, S. Säätelä: *Introduction to Wittgenstein*

## Lecture 4 9.9.2024:

- “Nonsense” and other problems of / with the Tractatus
  - From the Tractatus to the PI
  - The striving for exactness and simplification

Wittgenstein’s later philosophy: Focus on behaving and acting

# Some other problems of / with the *Tractatus*

# «Nonsense»? Inconsistency? Paradox?

- 1) TLP preface: **The *Tractatus* expresses thoughts.**

Wenn diese Arbeit einen Wert hat, so besteht er in zweierlei. Erstens darin, daß in ihr Gedanken ausgedrückt sind, und dieser Wert wird umso größer sein, je besser die Gedanken ausgedrückt sind.

- 2) TLP 4: Only bi-polar sentences can express *thoughts*; thought = sentence with sense (*sinnvoller Satz*).
- 3) TLP preface, TLP 6.54: The sentences of the *Tractatus* are *non-sensical*. Therefore, **the *Tractatus* cannot express thoughts.**

➤ How can the *Tractatus* express thoughts if its sentences are non-sensical?

Russell, in his preface to TLP, reg. “The sentences of philosophy are non-sensical” (TLP Preface, 4.003, 6.51): “... Mr Wittgenstein manages to say a good deal about what cannot be said ...”

- Is the context-principle nonsense? (TLP 3.3 a.o.)
- Is the sign-symbol distinction nonsense? (TLP 3.32 a.o.)
- Are the notions of the elementary proposition and the truth table part of the ladder to be thrown away?
- What is it that we understand when (we feel that) we *understand* what the *Tractatus* says about ethics, logic, philosophy? According to the *Tractatus* account of understanding, there should be nothing to be understood?
- Is there something like *partial* understanding, like half a thought? But cf. idea of 100% determinacy of sense.

# Remedy?

- What does 6.54 refer to?

**My propositions are elucidatory in this way: he who understands me finally recognizes them as senseless [*unsinnig*], when he has climbed out through them, on them, over them. (He must so to speak throw away the ladder, after he has climbed up on it.)**

He must surmount these propositions; then he sees the world rightly.

- *Which* propositions are *unsinnig*? All TLP 1-6.53, or only 6-6.53?  
Or even only the propositions 6.5-6.53?

- Important nonsense vs. plain nonsense?
  - Cf. “Resolute readings” of the *Tractatus*

# How is the Tractatus to be to read?

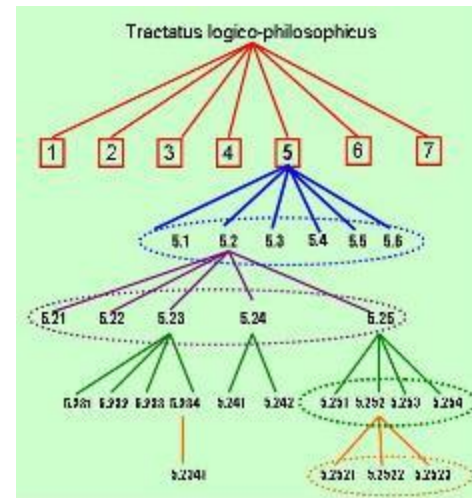
- 1 The world is everything that is the case.
- 1.1 The world is the totality of facts, not of things.
- 1.11 The world is determined by the facts, and by these being *all* the facts.
- 1.12 For the totality of facts determines both what is the case, and also all that is not the case.
- 1.13 The facts in logical space are the world.
- 1.2 The world divides into facts.
- 1.21 Any one can either be the case or not be the case, and everything else remain the same.
- 2 What is the case, the fact, is the existence of atomic facts.
- ...

# See the author's own note about the Tractatus' decimal numbering

The decimal figures as numbers of the separate propositions indicate the logical importance of the propositions, the emphasis laid upon them in my exposition. The propositions  $n.1$ ,  $n.2$ ,  $n.3$ , etc., are **comments** on proposition No.  $n$ ; the propositions  $n.m1$ ,  $n.m2$ , etc., are **comments** on the proposition No.  $n.m$ ; and so on.

# Linear vs. "tree"-reading (trunk + branches)

<http://www.bazzocchi.com/wittgenstein/tractatus/>



- 1.1 is a branch of 1 and should therefore be read as a *comment* on 1;
  - 5.631 is a branch of 5.63 and should therefore be read as a *comment* on 5.63;
  - 5.64 is on the same hierarchical level as 5.63 and should therefore (rather than 5.631) be read as the continuation of 5.63
  - 6.54 is a branch of 6.5 and should therefore should be read as a *comment* on 6.5; etc.  
etc.
- Alois Pichler 2024h 8



See also the Iowa Tractatus map at  
<http://tractatus.lib.uiowa.edu/>

«Ludwig Wittgenstein's *Tractatus Logico-Philosophicus* consists of a series of numbered remarks, arranged in numerical order. The seven most important are numbered 1 to 7; decimal numbers are used to indicate the structure of the supporting paragraphs. A footnote, attached to the first remark, tells the reader that

The decimal figures as numbers of the separate propositions indicate the logical importance of the propositions, the emphasis laid upon them in my exposition. The propositions n.1, n.2, n.3, etc., are comments on proposition No. n; the propositions n.m1, n.m2, etc., are comments on the proposition No. n.m; and so on....

The site is built around a subway-style map, with the aim of displaying the overall structure of the numbering system, and making it easy to look at the sequences of propositions described in the introductory footnote, together with the remark that they comment on.»

# Does it make a difference?

- Reading the *Tractatus* linearly, you will read #2 probably much later than in the case when you approach the *Tractatus* tree- or subway- or ladder-wise.
- If you read the *Tractatus* tree- or subway- or ladder-wise, you will also read the target of many indexical words like "this", "here" ... differently.

# Example from Bazzocchi (Kirchberg 2012 paper)

- **5.63 I am my world. (The microcosm).**
- 5.631 ...
- 5.632 ...
- 5.633 Where in the world is a metaphysical subject to be found? You will say that this is exactly like the case of the eye and the visual field. But really you do not see the eye. And nothing in the visual field allows you to infer that it is seen by an eye.
- 5.6331 For the form of the visual field is surely not like this. ...
- 5.634 **This** is connected with the fact that no part of our experience is at the same time a priori. Whatever we see could be other than it is. Whatever we can describe at all could be other than it is. There is no a priori order of things.
- **5.64 Here it can be seen that solipsism, when its implications are followed out strictly, coincides with pure realism. The self of solipsism shrinks to a point without extension, and there remains the reality co-ordinated with it.**
- 5.641 ...

# See Hacker 2015

- “The book was constructed as a logical tree, with propositions 1 to 6 as the basic propositions. From these, various branches are constructed as numerical sequences (e.g. 4.1, 4.2, 4.3, 4.4 and 4.5). From each of these nodes further branches stem. Bazzocchi demonstrates that the book was not meant to be read linearly (as we all read it), but sequentially. This renders the argument of the book perspicuous, illuminates the anaphoric references, makes clear the dependence of proposition 7 on 6, rather than on 6.54. It shows that the conception of the book as a 526-rung ladder, as suggested by the American Wittgensteinians, is misguided.”

P.M.S. Hacker (2015): “How the Tractatus was Meant to be Read”,  
The Philosophical Quarterly, Vol. 65, Issue 261, 648–668

TLP 6.54 only a comment on TLP 6.5? And  
TLP 6.5 only a comment on TLP 6?

TLP 6: The general form of truth-function is:  $[\bar{p}, \bar{\xi}, N(\bar{\xi})]$ .  
This is the general form of proposition.

TLP 6.5: For an answer which cannot be expressed the question too cannot be expressed.

*The riddle* does not exist.

If a question can be put at all, then it *can* also be answered.

TLP 6.54: My propositions are elucidatory in this way: he who understands me finally recognizes them as senseless [*unsinnig*], when he has climbed out through them, on them, over them. (He must so to speak throw away the ladder, after he has climbed up on it.)

He must surmount these propositions; then he sees the world rightly.

# Which is the *Tractatus* ladder?

My propositions are elucidatory in this way: he who understands me finally recognizes them as senseless [*unsinnig*], when he has **climbed out through them, on them, over them**. (He must so to speak throw away **the ladder**, after he has climbed up on it.)

He must surmount these propositions; then he sees the world rightly.

- The ladder consists of the propositions used for climbing.

# The Tractatus' main "branches"

1. Die Welt ist alles, was der **Fall** ist.
2. Was der **Fall** ist, die **Tatsache**, ist das Bestehen von Sachverhalten.
3. Das **logische Bild** der **Tatsache** ist der **Gedanke**.
4. Der **Gedanke** ist der sinnvolle **Satz**.
5. Der **Satz** ist eine **Wahrheitsfunktion** der Elementarsätze.  
(Der Elementarsatz ist eine Wahrheitsfunktion seiner selbst.)
6. Die allgemeine Form der **Wahrheitsfunktion** 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.

# Reading the Tractatus' tree-wise lets you also better see its main "branches" and their connections («**chaining**»)

1. The world is everything that is **the case**.
2. What is **the case**, **the fact**, is the existence of atomic facts.
3. The **logical picture** of **the facts** is **the thought**.
4. **The thought** is the significant **proposition**.
5. **Propositions** are **truth-functions** of elementary propositions.  
(An elementary proposition is a truth-function of itself.)
6. The general form of **truth-function** 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.



# The *Tractatus* ladder

- Rung 1: The world is everything that is the case.  
Rung 2: What is the case, the fact, is the existence of atomic facts.  
Rung 3: The logical picture of the facts is the thought.  
Rung 4: The thought is the significant proposition.  
Rung 5: Propositions are truth-functions of elementary propositions.  
(An elementary proposition is a truth-function of itself.)  
Rung 6: The general form of truth-function is:  $[\bar{p}, \xi, N(\xi)]$ .  
This is the general form of proposition.

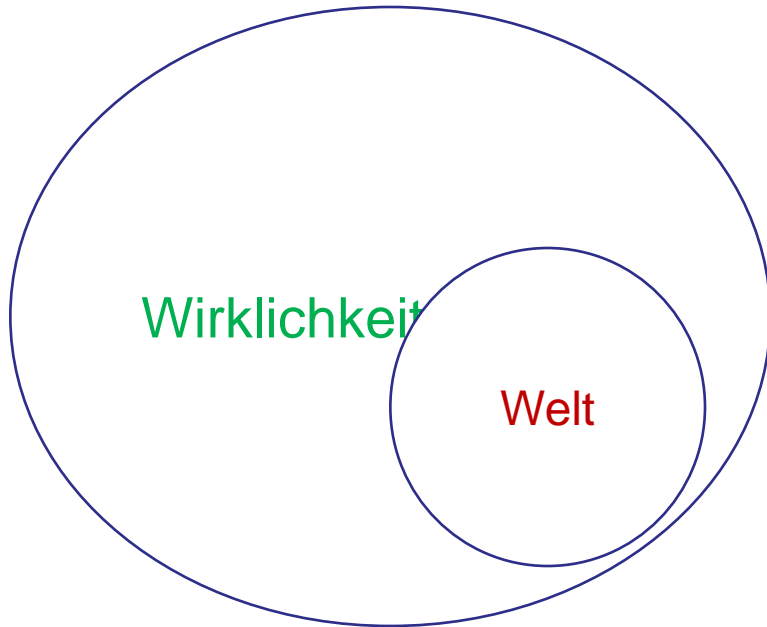
Whereof one cannot speak, thereof one must be silent.

Climbing the *Tractatus* ladder means reaching the insight of TLP 6 – i.e. **taking in the formula that shows the general form of the truth-function and of the proposition!**



Still other weaknesses  
(at least in the eyes of Frege, a.o.)

# Inconsistent?



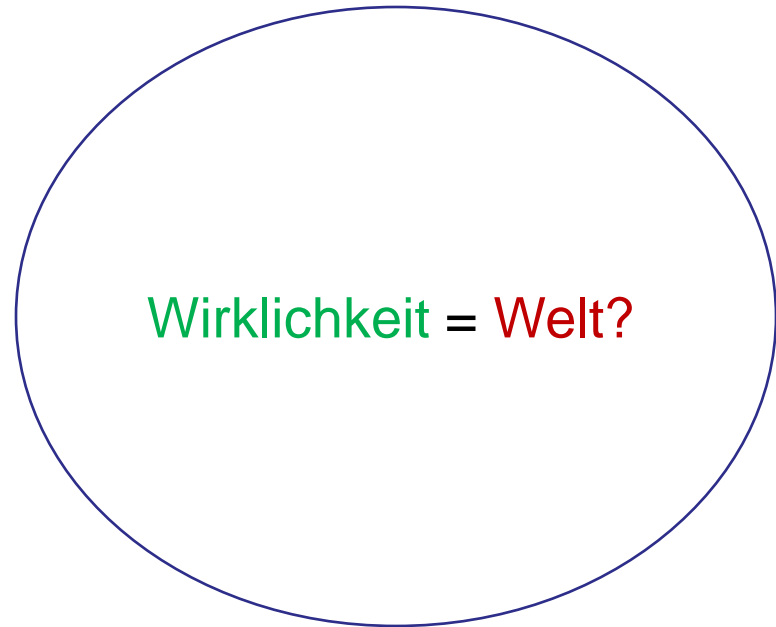
World = the obtaining states of affairs (= facts)?

TLP #1: The **world** is everything that is the case.

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**.

- «reality» = the obtaining states of affairs (= facts) + non-obtaining states of affairs?
- «world» = **a subset of reality**, namely facts only?



World = the obtaining states of affairs + the non-obtaining states of affairs = Reality?

TLP #2.063: The total **reality** is the **world**.

# Inconsistent?

- Wittgenstein in a letter of 19.8.1919 to Russell:
  - **Sachverhalt is, what corresponds to an Elementarsatz if it is true.** [Isn't it *Tatsache* that corresponds to a true elementary proposition? And isn't *Sachverhalt* what corresponds to an Elementarsatz even if it is *false*?] See TLP #2: Was der Fall ist, die Tatsache, ist das **Bestehen** von Sachverhalten.
  - **Tatsache is what corresponds to the logical product of elementary props when this product is true.** [Isn't that a «*molecular*» Tatsache? And aren't there also Tatsachen that correspond to simple («atomic») propositions?]

# Sloppy?

Frege in a letter of **16.9.1919** to Wittgenstein. In: Ludwig Wittgenstein: Gesamtbriefwechsel/ Complete Correspondence. Electronic Edition, IntelLex <http://pm.nlx.com>:

- Sie schreiben nun: "Was einem Elementarsatze entspricht, wenn er wahr ist, ist das Bestehen eines Sachverhaltes". Hiermit erklären Sie nicht den Ausdruck "Sachverhalt", sonder[n] den ganzen Ausdruck, "das Bestehen eines Sachverhaltes". In einer Definition muss der erklärte Ausdruck immer als untrennbar Ganzes angesehen werden. ...

Transl. by Burton Dreben and Juliet Floyd:

- You now write: "What corresponds to an elementary proposition, if it is true, is **the existence** of an atomic fact." With this you explain, not the expression "atomic fact", but rather the whole expression, "the existence of an atomic fact". In a definition the expression explained must always be viewed as an inseparable whole. ...

# Poetry, not science?

Frege in a letter of **16.9.1919** to Wittgenstein. In: Ludwig Wittgenstein: Gesamtbriefwechsel/ Complete Correspondence. Electronic Edition, InteLex <http://pm.nlx.com>:

- Was Sie mir über den Zweck Ihres Buches schreiben, ist mir befremdlich. Danach kann er nur erreicht werden, wenn Andere die darin ausgedrückten Gedanken schon gedacht haben. Die Freude beim Lesen Ihres Buches kann also nicht mehr durch den schon bekannten Inhalt, sondern nur durch die Form erregt werden, in der sich etwa die Eigenart des Verfassers ausprägt. **Dadurch wird das Buch eher eine künstlerische als eine wissenschaftliche Leistung**; das, was darin gesagt wird, tritt zurück hinter das, wie es gesagt wird. Ich ging bei meinen Bemerkungen von der Annahme aus, Sie wollten einen neuen Inhalt mitteilen. Und dann wäre allerdings grösste Deutlichkeit grösste Schönheit.

Transl. by Burton Dreben and Juliet Floyd:

- What you write me about the purpose of your book strikes me as strange. According to you, that purpose can only be achieved if others have already thought the thoughts expressed in it. The pleasure of reading your book can therefore no longer arise through the already known content, but, rather, only through the form, in which is revealed something of the individuality of the author. **Thereby the book becomes an artistic rather than a scientific achievement;** that which is said therein steps back behind how it is said. I had supposed in my remarks that you wanted to communicate a new content. And then the greatest clarity would indeed be the greatest beauty.

# Not according to the book?

Frege in a letter of 3.4.1920 to Wittgenstein. In: Ludwig Wittgenstein: Gesamtbriefwechsel/ Complete Correspondence. Electronic Edition, IntelLex <http://pm.nlx.com>:

- 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 wie weit 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. ...



Transl. by Burton Dreben and Juliet Floyd:

- As for your own writing, I already depart from it at the very first sentence. Not that I took it to be false, but the sense is unclear to me. “The world is everything that is the case.” The “is” is used either as a mere copula, or as the sign of equality in the fuller sense of “is the same as”. While the “is” of the subordinate clause is obviously a mere copula, I can only understand the “is” of the main clause in the sense of an equality sign. Up to here I believe no doubt is possible. But is the equation to be understood as a definition? That is not so clear. Do you want to say, “I understand by ‘world’, everything that is the case”? Then “the world” is the explained expression, “everything that is the case” the explaining expression. In this case nothing is thereby asserted of the world or of that which is the case, but if anything is to be asserted, then it is something about the author’s use of language. Whether and how far this use might concur with the language of everyday life is a separate matter, which is, however, of little concern to the philosopher once he has established his use of language.

# Arrogant and lazy?

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.

Simple objects:

- "Real" (e.g. material particles of physics) or phenomenal (e.g. points in the visual field, objects of acquaintance)?
- "Things" only, or also properties and relations? If elementary propositions of the form "Fa" or "aRb" are to be possible, then simple objects have to include also properties and relations?!
  - See Ms-102,147r[3] (date: 19150616): [Auch Relation und Eigenschaften etc. sind Gegenstände](#).

# From the Tractatus to the PI

1. From linear and gapless series to ...
2. From the ambition for exactness / determinacy / generality / simplification to the acceptance of the normal
3. Meaning revisited: from reference to rules; from rules to acting and practice
4. From philosophical concepts to everyday language

# PI preface

Four years ago I had occasion to re-read my first book (the *Tractatus Logico-Philosophicus*) and to explain its ideas to someone. It suddenly seemed to me that I should publish those old thoughts and the new ones together: that the latter could be seen in the right light only by contrast with and against the background of my old way of thinking.

... against the background of my old way of thinking

TLP philosophy of language	PI
?	Persons, humans (PI §1)
?	Body language (PI §1)
?	Human behaviour (PI §244)
?	Human <b>acting</b> (PI §1)
?	Examples (PI §1)
?	Real, everyday language and life (PI §§1, 108, 156, 241)
?	Life, biology (PI §§19, 23, 142, 441, 472; PI II xii / §365f)
The general form of proposition	Many kinds of sentences (PI §23)
The simple objects as perennial «substance of the world»	(Synchronic and diachronic) variation (PI §§ 11, 12, 14, 18, 23)
The problem of the nature of the proposition	Many problems (PI §133)
Logical analysis	Many methods (PI §133)
Reference	Use (PI §§ 1, 43, 432)
Determinacy and exactness	Vagueness and open-endedness (PI §§ 18, 66f, 71, 133)
Linear ladder structure	Criss-cross album structure (PI preface, §68)

From linear and  
gapless series to ...

# The *Tractatus* ladder

Rung 1: Die **Welt** ist alles, **was der Fall ist**.

Rung 2: **Was der Fall ist**, die **Tatsache**, ist das Bestehen von Sachverhalten.

Rung 3: Das logische Bild der **Tatsache** ist der **Gedanke**.

Rung 4: Der **Gedanke** ist der sinnvolle **Satz**.

Rung 5: Der **Satz** ist eine **Wahrheitsfunktion** der Elementarsätze.  
(Der Elementarsatz ist eine **Wahrheitsfunktion** seiner selbst.)

Rung 6: Die **allgemeine Form der Wahrheitsfunktion** ist:  $[\bar{p}, \bar{\xi}, N(\bar{\xi})]$ .

Dies ist die allgemeine Form des Satzes.

Wovon man nicht sprechen kann, darüber muß man schweigen.

Climbing the *Tractatus* ladder means reaching the insight of TLP 6 – i.e. **taking in the formula that shows the general form of the truth-function and of the proposition!**



# PI preface

The thoughts which I publish in what follows are the precipitate of philosophical investigations which have occupied me for the last sixteen years. They concern many subjects: the concepts of meaning, of understanding, of a proposition, of logic, the foundations of mathematics, states of consciousness, and other things. I have written down all these thoughts as *remarks*, short paragraphs, of which there is sometimes a fairly long chain about the same subject, while I sometimes make a sudden change, jumping from one topic to another.—It was my intention at first to bring all this together in a book whose form I pictured differently at different times. But the essential thing was that the thoughts should proceed from one subject to another **in a natural order and without breaks**. [*dass darin die Gedanken von einem Gegenstand zum andern in einer natürlichen und lückenlosen Folge fortschreiten sollten*].

After several unsuccessful attempts to weld my results together into such a whole, I realized that I should never succeed. ... And this was, of course, connected with the very nature of the investigation. For this compels us to travel over a wide field of thought criss-cross in every direction. ... **Thus this book is really only an album.**



# G. Frege: Grundgesetze der Arithmetik, Vol. 1, 1893: Einleitung

„Durch die **Lückenlosigkeit** der Schlussketten wird erreicht, dass jedes Axiom, jede Voraussetzung, Hypothese, oder wie man es sonst nennen will, auf denen ein Beweis beruht, ans Licht gezogen wird; und so gewinnt man eine Grundlage für die Beurtheilung der erkenntnistheoretischen Natur des bewiesenen Gesetzes. ... Herr Dedekind sagt oft nur, dass der Beweis aus den und den Sätzen folge; er gebraucht Pünktchen, wie in „ $M(A, B, C, \dots)$ “; nirgends ist bei ihm eine Zusammenstellung der von ihm zu Grunde gelegten logischen oder andern Gesetze zu finden, und wenn sie da wäre, hätte man keine Möglichkeit, zu prüfen, ob wirklich keine andern angewendet wären; denn **dazu müssten die Beweise nicht nur angedeutet, sondern lückenlos ausgeführt sein. ... Und worin ich seinen Werth nicht zum geringsten Theile sehe, die strenge Lückenlosigkeit der Schlussketten wird ihm, wie ich fürchte, wenig Dank einbringen.**“

Philosophy's striving for *linear order, exactness, simplification, reducibility and general applicability*

A fact about ordinary language

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

# Vagueness, ambiguity, context dependency

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

# Science

«But science (Wissenschaft)  
needs exactness!»

- «Thank God: Ordinary language also includes some not speaker context dependent proper names and definite descriptions!»
  - «Simo Säätelä», «Bergen», «The Finnish professor at the Philosophy department in Bergen» ...

# *Exact* language: A possible way out?

- «We need exact language; let's create it.»
- Or (Frege and *Tractatus*!): «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 vague, ambiguous, context-dependent meanings – '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 compound propositions on the basis of their *logical form alone*
  - The *Tractatus*' truth tables calculus!

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

## Generality, reducibility, simplicity

- See TLP #5.101 for all (16!) possible truth value series for two elementary propositions p and q.
- Moreover, all logical operations can be reduced to a single logical operation, namely applying the N-operator (TLP #5.5).

# 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.: as long as 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.

Back to the «messy» semantics of  
*normal* language...

## Meaning:

If not reference – what is it then?

If meaning (incl. sense and reference) and truth are not established through the elementary proposition that (through its simple names) connects with the world - what is it then that gives our language and thought meaning and truth?

1. Cum ipsi (maiores homines) appellabant rem aliquam, et cum secundum eam vocem corpus ad aliquid movebant, videbam, et

tenebam hoc ab eis vocari rem illam, quod sonabant, cum eam vellent ostendere. Hoc autem eos velle ex motu corporis aperiiebatur: tamquam verbis naturalibus omnium gentium, quae fiunt vultu et nutu oculorum, ceterorumque membrorum actu, et sonitu vocis indicante affectionem animi in petendis, habendis, rejiciendis, fugiendisve rebus. Ita verba in variis sententiis locis suis posita, et crebro audita, quarum rerum signa essent, paulatim colligebam, measque jam voluntates, edomito in eis signis ore, per haec enuntiabam. (Augustine, Confessions, I. 8.)

**These words, it seems to me, give us a particular picture of the essence of human language. It is this: the words in language name objects a sentences are combinations of such names. — In this picture of language we find the roots of the following idea: Every word has a meaning. This meaning is correlated with the word. It is the object for which the word stands.**

...

Now think of the following use of language: I send someone shopping. I give him a slip of paper marked “five red apples”. He takes the slip to the shopkeeper, who opens the drawer marked “apples”; then ... “But how does he know where and how he is to look up the word ‘red’ and what he is to do with the word ‘five’?” — Well, I assume that he **acts** as I have described. Explanations come to an end somewhere. a But what is the meaning of the word “five”? — No such thing was in question here, only how the word “five” is used.