Wittgenstein's *Tractatus Logico-Philosophicus*
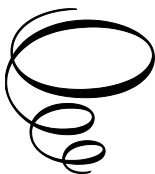
Wittgenstein's *Tractatus Logico-Philosophicus*

Edited by

Andreas Georgallides

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LIST OF ABBREVIATIONS

Wittgenstein's works

BLF   *Letters to Ludwig von Ficker*
CL   *Cambridge Letters*
CV   *Culture and Value*
GB   *Gesamtbriefwechsel*
LFW   *Lectures on Freedom of the Will*
LO   *Letters to C.K. Ogden*
MS   *A Nachlass manuscript*
NB   *Notebooks 1914-1916*
OC   *On Certainty*
PI   *Philosophical Investigations*
RFM   *Remarks on the Foundations of Mathematics*
TLP   *Tractatus Logico-Philosophicus, translated by C.K. Ogden*
TLP* *Tractatus Logico-Philosophicus, translated by D.F. Pears & B.F. McGuinness*
VW   *The voices of Wittgenstein: The Vienna Circle: L. Wittgenstein and F. Waismann*
WE   *Wittgenstein – Engelmann: Briefe, Begegnungen, Erinnerungen*
WVC   *Ludwig Wittgenstein and the Vienna Circle: Conversations Recorded by F. Waismann*

INTRODUCTION

This volume of twelve chapters commemorates the one-hundredth anniversary of the publication of Ludwig Wittgenstein's *Tractatus Logico-Philosophicus*. The *Tractatus Logico-Philosophicus* was first published in 1921 in the journal *Annalen der Naturphilosophie* under the title *Logisch-Philosophische Abhandlung*. A year later, Routledge & Kegan Paul published a bilingual German-English edition. Charles Ogden, with help from Frank Ramsey, translated the text, and Wittgenstein himself revised many of its points. Another English translation, from David Pears and Brian McGuinness, without the German text is also well-established.

Wittgenstein, who was deeply influenced by the work of Gottlob Frege and Bertrand Russell, wrote most of the *Tractatus Logico-Philosophicus* during the First World War while he served as a volunteer in the Austrian-Hungarian army. The *Tractatus* is mostly based on some of Wittgenstein's previous works, specifically in ideas that emerged in discussions with Russell, such as *Notes on Logic* (1913) (published as Appendix I in the *Notebooks 1914–1916*), *Notes Dictated to G. E. Moore in Norway* (1914) (published as Appendix II in the *Notebooks 1914–1916*), on the *Notebooks 1914–1916* (although the last entry was written in January 1917) and his correspondence with Russell, G. E. Moore, and John Keynes. Russell wrote an introduction to the *Tractatus Logico-Philosophicus*; however, Wittgenstein never accepted it because he thought it was full of misinterpretations.

A hundred years after its publication, the *Tractatus Logico-Philosophicus* remains one of the most important and difficult philosophical works. Its interpretation continues to provoke strong yet creative disagreements among philosophers. The short work is based on seven main statements. According to the Pears and McGuinness translation, the statements are as follows:

1. The world is all that is the case.
    [Die Welt ist alles, was der Fall ist.]
2. What is the case—a fact—is the existence of states of affairs.
    [Was der Fall ist, die Tatsache, ist das Bestehen von Sachverhalten.]

3.　A logical picture of facts is a thought.
　　[Das logische Bild der Tatsachen ist der Gedanke.]
4.　A thought is a proposition with a sense.
　　[Der Gedanke ist der sinnvolle Satz.]
5.　A proposition is a truth-function of elementary propositions.
　　(An elementary proposition is a truth-function of itself.)
　　[Der Satz ist eine Wahrheitsfunktion der Elementarsätze.
　　(Der Elementarsatz ist eine Wahrheitsfunktion seiner selbst.)]
6.　The general form of a truth function is $[\bar{P}, \bar{\xi}, N(\bar{\xi})]$.
　　This is the general form of a proposition.
　　[Die allgemeine Form der Wahrheitsfunktion ist: $[\bar{P}, \bar{\xi}, N(\bar{\xi})]$.
　　Dies ist die allgemeine Form des Satzes.]
7.　What we cannot speak about we must pass over in silence.
　　[Wovon man nicht sprechen kann, darüber muss man schweigen.]

Wittgenstein explains each of the above statements, with the exception of the seventh, through other statements that are subsequently numbered (e.g., 2.01, 2.011). The work, which consists of 526 numbered statements, lacks argumentation (for the most part) and mainly examines the relations between language and the world, that is, the relations between a system of representation and the world. According to the *Tractatus*, the idea of representation presupposes a common form between language and the world. Statements 1 and 2, along with their explanatory statements, examine how the world must be, while statements 3, 4, 5, and 6, along with their explanatory statements, examine how language must be. Throughout the work, Wittgenstein creates a paradox that encourages a distinction between saying and showing; the distinction creates space for a type of silence. Thus, the culmination of the first six statements (and their accompanying explanatory statements) in the seventh statement, which is presented without any further explanatory statements, establishes a specific type of silence.

The present volume consists of the following chapters:

Chapter 1
'Meaning and Use in the *Tractatus*'
James Cargile (University of Virginia, USA)

In the *Tractatus*, the ideal language eliminates the role of user. However, this is radically at odds with Wittgenstein's later emphasis on the importance of use. James Cargile explores the Tractarian conception of the

use for ideal language and demonstrates how it conflicts with Wittgenstein's later view.

Chapter 2
'The *Tractatus* and Intercultural Understanding'
Leo K. C. Cheung (The Chinese University of Hong Kong)

Leo Cheung argues that Wittgenstein's picture-theory of language in the *Tractatus* originated from the philosopher-physicist Heinrich Hertz's picture theory for a theoretical language of mechanics with qualifications. Cheung also argues that, because Hertz's Kantianism influenced the *Tractatus*, intercultural understanding among users of different, adequate languages is always possible, although these adequate languages may be locally incommensurable.

Chapter 3
'From the Form of the Empirical Model to the Tractarian Form of the Elementary Proposition'
Andreas Georgallides (University of Cyprus)

Andreas Georgallides examines how, in the *Tractatus*, Wittgenstein moves from general considerations about representation to more specific considerations about the representation of language. He also explains why the idea of isomorphism, that of a common logical form, between language and the world remains mysterious. This suggests that language involves something incomprehensible that cannot be explained.

Chapter 4
'Internal Relations'
Christian Kanzian (University of Innsbruck, Austria)

Christian Kanzian examines the Tractarian passages on internal properties and relations (4.122, 4.123, 4.124, 4.125) and discusses the early twentieth century context in which philosophers discussed the topic. Kanzian then considers the relevance of Wittgenstein's view on internal relations in contemporary analytical ontology.

Chapter 5
'Wittgenstein's Distinction between Saying and Showing'
Oskari Kuusela (University of East Anglia, UK)

Oskari Kuusela discusses Wittgenstein's distinction between saying and showing, which has long troubled Wittgenstein's readers. Kuusela offers a novel interpretation of the distinction that distinguishes what is shown in metaphysical truths and theses, and he explicates how showing in philosophical clarification does not involve advancing any theses.

Chapter 6
'Logic and Analysis in the *Tractatus Logico-Philosophicus*'
Montgomery Link (Suffolk University, USA)

A perennial question concerns whether philosophical inquiry is distinct from other methods of investigation. In the *Tractatus*, the method of inquiry is logical and decompositional. Since they are composed to fit the requirements for each analysis case by case, the atoms of composition are not reductions that somehow exist outside the theory. This suggests a pluralistic view of logic. Montgomery Link argues that there is nothing in the form of analysis in the *Tractatus* that prohibits different orders of generality.

Chapter 7
'Wittgenstein's *Tractatus* and Functional Completeness'
Odysseus Makridis (Fairleigh Dickinson University, USA)

Odysseus Makridis examines Wittgenstein's views, as expressed in the *Tractatus*, about the nature of logic and shows how the metalogical property of functional completeness plays a key role in grounding the Tractarian view. He examines Wittgenstein's construction of the presumably functionally complete, controversial N-operator. He argues that Wittgenstein's view of logic is Symbolicist or Syntacticist and then demonstrates how Wittgenstein's Symbolicist approach provides solutions to challenges about the nature and status of logic.

Chapter 8
'*Tractatus* 5.1362 (reloaded)'
Diego Marconi (University of Torino, Italy)

In *Tractatus* 5.1362, Wittgenstein presents an argument for free will. The argument's point is usually brought back to his endorsement of a Humean analysis of causation. Diego Marconi argues that the structure of Wittgenstein's argument is far from clear, and that, depending on various interpretations, the argument is either unsound, invalid, or committed to very strong assumptions.

Chapter 9
'The Leading Edge of Sense: Coming to Understand in Wittgenstein's *Tractatus*'
Ian O'Loughlin (Pacific University, USA)

Ian O'Loughlin discusses how the Tractarian view of thought problematizes whether one can learn anything fundamentally new. However, by adopting an imaginative understanding of nonsense, which has been developed in debates on how to read the 'nonsense' of the *Tractatus*, we can understand fundamental conceptual change as a transformation from sense to nonsense and nonsense to sense.

Chapter 10
'The Ontological Sufficiency of Language in Wittgenstein's *Tractatus*'
Nicholas Rescher (University of Pittsburgh, USA)

Nicholas Rescher presents a detailed and many-faceted critique of the thesis "the world is, and *only* is, as language enables us to think it to be". He focuses on two main questions: (a) Does the *Tractatus* maintain the ontological completeness of language; and (b) Is the doctrine itself tenable?

Chapter 11
'Early Wittgenstein on Scepticism and Nonsense'
Antonio Segatto (São Paulo State University, Brazil)

Antonio Segatto aims to understand Wittgenstein's enigmatic remark – "scepticism is *not* irrefutable, but obviously nonsensical" (6.51) – near the end of the *Tractatus*. To understand this often-neglected remark, one must understand why both sceptical questions and doubts are not false, but

nonsensical, for they employ formal concepts as if they were proper concepts.

Chapter 12
'Wittgenstein's Approach to the World in the *Tractatus'*
Ilse Somavilla (University of Innsbruck, Austria)

Wittgenstein was ambivalent to his notion of philosophy. Ilse Somavilla discusses Wittgenstein's approach to the world and distinguishes between his scientific and analytical approach from his mystical-religious approach, which is obvious in the last few sections of the *Tractatus*. Somavilla's discussion also explores Wittgenstein's awareness of the limits of language and, thus, his distinction between 'saying' and 'showing'.

At this point, I would like to express my deepest thanks to the contributors to this commemorative volume – James Cargile, Leo Cheung, Christian Kanzian, Oskari Kuusela, Montgomery Link, Odysseus Makridis, Diego Marconi, Ian O'Loughlin, Nicholas Rescher, Antonio Segatto, and Ilse Somavilla. I would also like to thank Cambridge Scholars Publishing for their great cooperation in producing the collection.

Andreas Georgallides

CHAPTER 1

MEANING AND USE IN THE *TRACTATUS*

JAMES CARGILE

Tractatus Logico-Philosophicus is a discussion of a logically ideal language, conducted in ordinary language. It reflects the idea that certain paradoxes are due to defects of language and that developing a better language would eliminate the paradoxes. A notable feature of Wittgenstein's characterization of an ideal language is that it eliminates any role for users and the influence of usage on meaning. This essay is intended to spell out this feature and discuss its defects.

On Use for Ideal Language

I. A main concern of Wittgenstein's *Tractatus Logico-Philosophicus* (*TLP*[1]) is paradoxes such as the Liar or Russell's Paradox or the Morning Star Paradox. He blamed these paradoxes on defects in language. True, of those three, he only mentions by name Russell's Paradox, but a general elimination of paradoxes of that kind is advertising for the ideal language. The idea is that in a logically perfect language paradoxes of that kind could not arise. *TLP* describes the needed improvements, but does so in unreformed natural language (German). This gives a paradoxical quality to *TLP* itself. It closes at *TLP* 6.54 "to understand me you must recognize my sentences as senseless". *TLP* 4.002 says that it is humanly impossible to gather directly from a study of natural language, the logic of that language. Yet Wittgenstein says, at *TLP* 5.5563, that all the sentences of natural language, as they are, are logically, completely in order. It is just that the ordinary grammatical form of the sentences is not the genuine logical form (*TLP* 4.0031). This is heavily qualified by ruling that many constructions standardly counted as grammatical sentences of, say, English, are really just

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[1] In this chapter, I follow Ogden's translation and in some remarks I provide my own translation of the *Tractatus'* remarks, always based on Ogden's translation.

pseudo-sentences. *TLP* 5.534 implies that instances of the forms "a=a" or even "a=b", such as "Cicero is identical to Cicero" or "Cicero is identical to Tully" are not genuine sentences and thus do not qualify as completely in order logically.

It is one project to say what the genuine form of a natural language sentence is. A different project is to construct or describe a logically perfect language, in which there would be no question about the logical forms of the sentences. Yet another activity is to assess such a problem sentence, or pseudo-sentence, as

A. The sentence A is not true.

Wittgenstein follows the lead of *Principia Mathematica* in ruling that such an expression could not be constructed in a logically proper language. This is the style of modern logic and is notably unsatisfactory philosophy. A is obviously an expression of English and it is easy to convince many intelligent speakers that it is true if and only if it is not. In fact 'Dialetheism' gives that answer---A is both true and not true, contrary to the Law of Non-contradiction. While I find that unacceptable, it has the form of an honest answer to a genuine puzzle. Even if it were true that such a sentence could not occur in a proper language, it obviously has occurred in English and it is no answer to an argument purporting to show it is both true and not true that it would not occur in a better language.

TLP is a powerful exposition of that unsatisfactory strategy even if it is difficult to follow. We are compelled to try to understand it.

II (a) *TLP* 3.328 can be translated: "An unnecessary sign is meaningless. That is the point of Occam's razor". *TLP* 5.47321 has: "Naturally, Occam's razor is no arbitrary rule, nor one that is merely justified by successful application: its message is that *unnecessary* signs in a symbolic language are meaningless, they refer to nothing". *TLP* 3.328 has "nicht gebraucht" which is most easily 'unused' while *TLP* 5.47321 has 'unnötige' which is most easily 'unnecessary'. Being unnecessary does not imply being unused. A rich boxer with a dozen Bentleys may use them all while needing none (he could manage with his dozen Jaguars). Whether being unused implies being unnecessary is less clear. The law may require that a certain building have a fire extinguisher, on pain of being closed down if an inspector finds there is none. It may never be used. It is necessary to have it, though it is unused. "It was used to ward off the inspector". Perhaps so.

What was Wittgenstein's meaning? I do not know. Reflecting on ordinary uses of "unused sign" and "unnecessary sign" is not likely to lead to an answer. I cannot translate 'Zeicheneinheiten' in a helpful way. To say a sign s is unused in language L could mean that s is not a sign of L at all, or that it is obsolete. I suggest we restrict ourselves to "unused sign of L" setting aside "sign unused in L" as ambiguous. We might find a language L and word w such that w counts as a word of L and yet has never been used. If we report on this, w has been mentioned. It might never be noticed and thus neither used nor mentioned. This possibility arises in a language (such as German) that accepts compound words. Then it would be quite plausible that there are many acceptable words that have never been formulated.

Similarly, we should avoid "sign not necessary in L" and use such as "sign of L which is not necessary". If we accept 'furze' and 'gorse' as strict synonyms, then it would seem that neither is necessary. However, a poet writing "Ignoring the stable dog's grrs, I saddled up my horse, and rode out into the furze, which is to say, the gorse" might lament that dropping either term would be a loss to letters. Necessity can be relative to purposes, and purposes can be quite rarefied.

We might take Wittgenstein to hold that signs of a language that are either unused or unnecessary are meaningless. While that is false for natural languages, *TLP* is supposed to be about an ideal or logically perfect language. Part of that ideal includes not containing any unnecessary terms in the first place. So the claim that unnecessary signs are meaningless is only applicable to a language in which they do not occur.

'Unused' is notably unclear with respect to a *TLP* ideal because *TLP* is so dismissive of users. If "A believes that p", "A thinks p" and "A says p" are all of the form "'p' says p" (as *TLP* 5.542 seems to say), then so are "B says p", "C says p", etc. The user disappears, which makes the idea of use in an ideal language obscure. As a result, being unused is also cloudy.

(b) Thus Wittgenstein's formulas are not very helpful in clarifying the 'point' or 'message' of Ockham's razor. But do I propose to do better? On looking up "Ockham's razor" one finds that there is no passage in Ockham's writings that is generally accepted as his formulation. In my youth I heard "Entities should not be multiplied beyond necessity". This is no clearer than Wittgenstein's strictures against unused or unnecessary signs. However, it is clearly different. Insofar as that slogan is a good approximation to Ockham's razor, Wittgenstein's summaries are not. OR is about existence

assumptions, to the effect that entities of kind K exist, and signs are not assumptions.

While this seems obvious to me, it may need arguing. OR is surely not warning against such a practice as making three sandwiches and discarding one uneaten. OR is associated with making explanations, not lunches. If explaining why a planet has an elliptical orbit, someone might postulate that there is an invisible mass near each vertex of the major axis exerting a gravitational attraction which pulls the circle into an ellipse. Kepler's explanation is then superior, partly because it shows that it is unnecessary to postulate such entities. If the postulator named his alleged masses "orbit-stretchers" he might make this terminology quite clear. Then we could see that Kepler gave good reason to deny the existence of orbit-stretchers. If the theory had been popular, a variety of equivalent terms might have developed. These terms would have been unnecessary in one way, and useless in that there was no case for applying them truly to anything. That would not make them meaningless. They could have been introduced by a critic of the theory who never accepted it, just to simplify the discussion. The extra terms would have nothing to do with the inferiority of the theory, which is due to the existence assumptions being unnecessary in the best explanation, which is some reason to class them as false. Whether the terms are necessary is an unnecessary cloudy question.

TLP 6.363 says "The process of induction consists in postulating the simplest law that is in keeping with our observations". This is not equivalent to economizing on assumptions about the existence of entities. Two laws could purport to be about the same entities, while one was much simpler than the other. Postulating entities can sometimes allow simpler laws. Still, simplification includes economy about assumptions in a way that is much closer to the standard OR slogan than economy about symbols. It is noteworthy that Wittgenstein does not mention OR at all in this location. If that quote had continued "This is the point of Occam's razor", I for one, would have nodded and passed on---no point in complaining about the vagueness of endorsements of simplicity. Wittgenstein himself seems not to regard it as close to the message commonly associated with OR. But it is---so the two earlier *TLP* sayings called OR are miscalled.

(c) This is a simple observation, and simple observations about *TLP* are apt to be dangerous and thankless. A recent review of a book about Quine contains an observation which suggests the need for caution here:

> […] two notions of parsimony are not independent from each other. True, ideologically parsimonious theories allow us to reduce the number of predicates that we take as primitive. True, ontologically parsimonious theories allow us to reduce the number of kinds that we posit. But given that the number of kinds we posit is tied to the number of primitive predicates we take to be satisfied …there is an obvious connection between the two notions of parsimony. In particular, ontological parsimony engenders ideological parsimony: if we can increase the former by reducing Fs to Gs, then we can increase the latter since we no longer need to regard the predicate "is F" as being primitive. In that sense, a preference for ideologically simple theories is reflected in scientific practice at least insofar as it is a consequence of our presumed preference for ontologically parsimonious theories. (Woodward 2014)

Ideology is not the same as terminology, and introducing assumptions in a theory need not introduce any new ontology. Still, if eliminating ontological assumptions entailed reduction in the number of signs, this would count in favor of extending the standard OR slogan to accommodate Wittgenstein's version in terms of symbol economy. Theorizing in natural language, including natural technical language, does not feature any strong connection between the number of symbols and the number of assumptions. We can add or subtract assumptions without changing the number of symbols and can at least add symbols without changing the number of assumptions. Some new assumption might call for new vocabulary, but the vocabulary could equally well be used to deny the assumption. Logical atomism may encourage the view that a meaningful predicate has to be associated with some feature possessed by the referents of logically proper names. If so, this should be added to the list of reasons for rejecting logical atomism.

(d) It is difficult to imagine a formal theory without atomic wfs. They are fundamental to the recursive definition of the syntax. Interpreting atomic 'Fa' poses no special problem. F may be assigned any subset of the domain, including the empty set. This assigning may be done by people using a natural language "meta-language", or independently of people in the language transcendent realm of sets. The atomic also makes sense in formulating recursive grammar for natural language. This is fine until it is suggested that such as "John is a bachelor" is "not really atomic" but mere abbreviation for "John is a man and not married (and perhaps of marriageable age and status, not previously married)". Then the quest for the truly atomic can lead to confusion.

The confusion is endemic to efforts at logically perfect languages which are not mere frameworks for model theory, but attempts to find the logically

simplest thoughts. Then thinking that a is F is bound to require the predicate marking "a feature of the world", as a basic condition of the existence of a thought, and economy about predicates would imply economy about features of the world. This is hopelessly out of touch with genuine language. Perhaps the brain operates with a computational "language of thought" which is closer to this ideal of the logically perfect language. Such computational language would manage digestion, respiration and all bodily functions, linguistic or otherwise. Its assertions could be addressed only to an audience incapable of speech.

(e) Reducing Fs to Gs would seem to be difficult to manage without symbols for Fs. Perhaps the history of science is not a science and its need for such terms as 'phlogiston' and 'Vulcan' just shows history is not an ideal theory. The fact remains that it was an important idea in science that there is a planet Vulcan near Mercury which effects Mercury's orbit so as to explain features of that orbit that did not fit the explanation for orbits which was the principle theory at the time. It was a discovery that Vulcan does not exist, so that 'Vulcan' does not refer. The idea that this proves that the term 'Vulcan' was useless is ignoring significant uses. The idea that it was meaningless is even worse.

Scientists may explain phenomenon P in part by claiming there are Fs. Reducing Fs to Gs that are Hs, then allows an explanation which replaces the claim there are Fs with the claim there are Gs which are Hs. That may make it possible for scientists to stop using the term 'F'. That does not show the term was meaningless or that it is useless for giving a history of the study of P. F need not have meant "G which is H". It could be associated with a property which was learned to have no instances, such as being phlogiston. You may try arbitrarily ruling that proper scientific theory has no use for saying such as that there really are no Fs, no Vulcan, no phlogiston. Historical scientific theories do need to say such things. A high redefinition of 'theory' may have the consequence there are no real theories. Wouldn't that require treating "real theory" as like "phlogiston"? That is not coherent.

When we narrow our attention from language to the language of an ideal formal theory, it may seem to make sense, when comparing two competing theory candidates for ideal status relative to some range of phenomena, to count the symbols used and the existence assumptions made. It might be a tempting *tour de force* to hold that the two economies come to the same thing. Then error about the existence of Fs would reduce to the error of ever introducing an F predicate. A proper atomic predicate could not be properly introduced unless there had been observation of some property to be marked

by the predicate. Discovering that there are no Fs would be discarded, in the course of formulating an ideal theory, as unworthy of mention, requiring a waste of symbols.

It is helpful to distinguish between a theory and the language in which the theory is expressed. There may be some point in the ideal of a logically perfect theory, even without realistic prospects for achieving one. A logically perfect language is a different matter. A theory can be regarded as a set of assertions, with no point in distinguishing between agents who make those assertions (so that "'p' says p"). It is essential to a language to allow that distinction. It is bad enough to depict sentences of a language as sayers. Representing them as assertions made by the language is much worse.

II (a) Wittgenstein's *TLP* view about economy of symbols has a bearing on a famous historical problem about identity. While perhaps best known as "The Morning Star Paradox", this misleadingly frames the problem in terms of definite descriptions. The problem, in terms of individual variables, which are most directly replaced in instantiations by proper names, is that it is a principle of the logic of identity that, (I) if x is identical to y, then any property of x is a property of y. But it seems that (II) some agent A might believe that a is identical to a without believing a is identical to b.

"A believes a is identical to a" seems to entail "a is believed by A to be identical to a", which seems to mean "a has the property of being believed by A to be identical to a". "A believes a is identical to b" also seems to entail "a is believed by A to be identical to b" (In that case, the reverse entailment claim is not true). It then follows that "a has the property of being believed by A to be identical to b". This leads to the result that, if (I) is necessary, (II) is impossible. But a student surely may not believe that Mark Twain is Samuel Langhorne Clemens, may even believe that Twain is not Clemens, without having any doubts as to whether Twain is Twain.

(b) Applying the rule from *TLP* 5.542 to "A believes that a is identical to a" yields "'a is identical to a' says that a is identical to a". The elimination of A eliminates any worry about some agent believing a is a but not a is b. That would support the line that denies there is any such property as being believed by A to be a, though it would be overkill. However, there remains "says that". We could still get to the result that a is said by the sentence "a is identical to a" to be identical to a, and from there to the result that a is said by the sentence "a is identical to a" to be identical to b. That can be further reworded so that "a is identical to a" is held, paradoxically, to be

saying that a is identical to b. The *TLP* 5.542 elimination of believers does not eliminate sayers, though it makes them out as sentences.

Plato was wonderfully ironical about sentences as sayers, parties to dialogue. He observes that if you ask what they are saying they just keep repeating themselves. 'Say' is ambiguous here. "What does that sentence say?" can be a mere request to have the words read out. *TLP* might want that interpretation of 'say'. That is a crucial departure from the idea of language in use. Natural language is essentially a system for use in saying things. Users are essential to this idea, and this includes not only sayers as speakers, but their audience. Those who genuinely hear what is said, understand by saying it to themselves and being able to say it to others, pass it on. To succeed in saying is to be understood. That is not a feature of language in itself.

TLP 5.542 is an interesting precursor to Tarski's famous criterion for truth, formulated with less care about the function of quotation marks. Wittgenstein's form: 'p' says p, is intended to be instantiated with the same sentence in and out of the quotes, not as a comment about the 16th letter of the alphabet. Where Tarski's scheme would have "'Snow is white' is true (in English) iff snow is white", *TLP* 5.542 would have "'Snow is white' says (in English) snow is white". Tarski's scheme presupposes that latter.

Both these forms reflect a deeply mistaken overgeneralization as to how to determine what (if anything) a sentence says. What is said by the sentence

A. The sentence A is not true,

is not correctly reported by "'The sentence A is not true' says the sentence A is not true". In saying that the sentence A is not true, the sentence A says also that it is not true that the sentence A is not true. So it is contradictory. Its not being true is not a sufficient condition for its being true. Therefore, the sentence A is not true. I can use those words to correctly assess that sentence, because I am a different agent from the sentence A---a point Wittgenstein ignores with his elimination of agents in *TLP* 5.542. This elimination is carried on by Tarski in a misdiagnosis of this other paradox, the Liar. Returning to the identity paradox, the relevance of *TLP* 5.542 to that problem needs to be made clear.

(c) More immediately relevant is the view about economy of symbols in a proper language discussed above. The example of the student thinking that Samuel Langhorne Clemens is not Mark Twain could have been eliminated by forbidding the use of pen names. Trouble over "Cicero is identical to

Tully" could have been cut off at the naming ceremony, by forbidding "Marcus Tullius Cicero" and insisting that they have to settle for just one name. I have argued that such rulings are not enforceable for a genuine language and are serious limitations on what can be expressed in an artificial language. Furthermore, they would fail to eliminate the Morning Star Paradox. That might encourage a "disguised name" theory of descriptions, since "the Morning Star" started out as 'Phosphorus' (naming a mythological character distinct from 'Hesperus'). Since that is a hopeless general theory about descriptions, mere economy of names would not be a way out of the paradox.

(d) There is another economy discussed in *TLP*. Stating the paradox seems to require use of identity locutions. Wittgenstein says "…the identity sign is not an essential part of logical notation" (*TLP* 5.533). He takes this to show (*TLP* 5.534) that "a=a" and similar expressions, which would include "a=b" would not be genuine sentences in a proper language. They "cannot be written in a correct logical notation". Such notation does seem an essential part of stating a problem about an agent who thinks Clemens is not Twain. Being relieved of the means of saying such things might then appear to be a way out of the paradox. That would appear to be costly, since many such things are obviously true.

It might be replied, that they are only true because agents have a language with features which allow them to make mistakes peculiar to the paradox. But James Fenimore Cooper really is not Mark Twain. It might be replied that, in a proper language, such truths would go without saying. It would be redundant to say that two names designate two distinct things, like saying (in a logically perfect language) that what you are saying is grammatical. Thinking that Cooper is Twain would be a linguistic error, a failure to understand the grammar.

Wittgenstein proposed what Jaakko Hintikka (Hintikka 1956, n.15) called an exclusive reading of quantifiers. Hintikka said the proposal was not worked out in detail and offered his own account of two versions of exclusive reading. He says his results show that "Wittgenstein was hence, right in saying that the identity sign is not an essential constituent of logical notation (*TLP* 5.533)". I will not attempt to assess the status of those results for formal systems of logic. It is interesting to ask what significance the absence of the identity sign and cognate expressions would have on the expressive powers of a natural language. That would be "identity alone", separate from the economies about naming discussed so far.

(e) However, it is not easy to precisely distinguish "identity alone". Even if reflexive attributions of identity in height, weight, etc. are dispensable, such attribution to distinct objects is important information. If A is identical in height to B, then the height of A is identical to the height of B. Perhaps we could make do with saying there is an n such that n is the height of A and also the height of B. Saying n is the height of A and also the height of A would be ruled out by economies on redundancy. There can be resistance to "the 'is' of identity" in favor of "the 'is' of predication". "Scott is the author of Waverly" could be "Scott authored Waverly". But we want to rule out coauthors. This is commonly done by using 'only', and that is commonly analyzed in terms of identity.

Is some information conveyable with the form "x=y" independent of language? The information that 14 times 96 is equal to 1344 is eternal and not dependent on any language. This may relate to the purpose of the remark in *TLP* 5.453 that it must be made clear that "there are no numbers in logic". I will not attempt to explain that. Consider a non-language user dealing with information about identity. A highly intelligent elephant, Mumbo, has an excellent memory. He is abused by a mahout, Bob. Bob has to leave for another job, since working with Mumbo would be dangerous. A few years later, Bob's identical twin brother, Bill, takes a job as mahout and is assigned to Mumbo. Mumbo attacks Bill in a rage and it is a close call. Didn't Mumbo mistakenly take Bill to be numerically identical to Bob, having this thought without use of language? If so, there could be judgments of identity, correct or incorrect, which were not at all linguistic.

Mumbo's judgment need not be credited with the idea of 'only'. Mumbo mistakenly thinks Bill has done him injury. There may be one and only one person who has done injury to Mumbo. Our example is not strong reason to credit him with that thought. The rage is adequately explained by the thought that this person has done him injury.

(f) *TLP* 5.5301 says "That identity is not a relation between objects is obvious". This would seem to imply there is such a thing as identity, which is not a relation between objects, but we must be wary. Wittgenstein continues: "This becomes very clear if one considers the sentence (x):fx.$\rightarrow$.x=a. This sentence says simply that *only a* satisfies function f, not that only objects having a certain relation to *a* satisfy function f". However, in an immediately following paragraph, Wittgenstein says "One might then say that *only a* has this relation to a, but this would have to be expressed using the identity sign".

That sounds more like an objection to his argument than an elaboration of it. In *TLP* 5.5321, he purports to show how Russell's "(x):fx.→.x=a" can be written in his system without using an identity sign. He says that it "can be written" "(Ex).f(x)→.fa:~(Ex,y).fx.fy". The copy here presented is not exact but should suffice. I take the idea to be that in the logically perfect language "(Ex,y)" is to be understood "There is a distinct x and y". This is an exclusive reading of the quantifiers of the sort discussed by Hintikka. But "x is distinct from y" is not a noncircular replacement for "x≠y".

TLP 5.5303 says "Roughly speaking: to say of *two* things that they are identical is nonsense, and to say of one thing that it is identical with itself is to say nothing". To say "The ball bearing in my left hand is identical to the ball bearing in my right hand" can be plainly true. What about "The ball bearing in my left hand is numerically identical to the ball bearing in my right hand"? That too, can be true, said by a skillful magician who shifts the one ball bearing from left to right by a sleight of hand accomplished well within the time required to utter the words.

TLP 5.5302 had said "Russell's definition of '=' is unsatisfactory, because according to it we cannot assert of two objects that they have all their properties in common (Even if this sentence is never right, it still makes sense)". So it seems we can say a is not identical to b even though they have all their properties in common, but we cannot say, in ideal language, that a is identical to b. But if it is okay to say a is not identical to b, the negation should be sayable.

(g) *TLP* 4.241 says "If I use two signs with one and the same meaning, I express this by putting between them the sign '='. 'a=b' means then, that the sign 'a' is replaceable by 'b'". This is not a good guide to the remarks about identity in *TLP* 5.53. It is an understandable use of the identity sign. We easily understand (Def) "'(PvQ)' = $_{def}$ (~P→Q)". This understanding includes knowing that "(PvQ)" is not replaceable by "(~P→Q)" in "'(PvQ)' is a disjunction". *TLP* 4.241 can be understood as a rough account of the use of the identity sign in such as (Def) and we understand (Def) as about substitutions within certain limits that might be unnecessarily tedious to spell out in detail. *TLP* 4.241 does offer a reason for finding "a=a" nonsensical. We do not have a ready sense for replacing the symbol 'a' with itself. We can invent one, but the observation that such 'replacement' is correct is at best redundant. However, the fact that a certain rule for making sense of "a=a" expressions does not work does not prove that they cannot make sense.

Returning to *TLP* 5.5301, while (Def) may not be stating a relation between 'objects', it is stating a relation between two expressions and the relation is, of course, not numerical identity. (Def) is a certain use of the identity sign to convey information about the interchangeability of two wfs. It is easy to see how that information could be conveyed without using the identity sign. There is a difference between claiming that certain uses of the identity sign convey information which can be conveyed without using that sign (or "cognate expressions") and claiming that certain uses convey no information at all. Extending the claim to all uses compounds the error.

The principle (I) (that if x=y then any property of x is a property of y) is the source of a paradoxical verdict about (II), that certain mistakes that are clearly possible are ruled out as impossible. In *TLP*, Wittgenstein's discussion of identity implies that such a paradox (which is not explicitly stated as it is presented here) is due to a defect in our language and the paradox would not arise in a logically correct language. On the contrary--- the paradox arises from confusion about what we are saying in our language. This is not to say it is not a deep confusion which may be difficult to overcome. But we need to start by recognizing that it arises as confusion about what we are using our language to say. We will not make good progress by setting up an ideal of language which makes users irrelevant and some sayings impossible.

(h) We can focus the attention of our group on an object without using language. It is a prelinguistic function. That can be done for such an object as the planet Venus. What we can say truly about it then depends on our audience and on the situation we are in. In First Order Logic plus Identity a version of (I) as "If x =y, then anything that can be said truly about x can be said truly about y" is made true by the rules of the 'language'. About English, it is a false general rule. What can be said depends on the audience and what can be said about something depends on how that thing is identified to the audience. Suppose that Bill and Bob are observing the sky in the evening darkness. If Bill points out to Bob a certain astronomical object, and says "That object has been discovered to be the Morning Star", that can be informative. If Bill says to Bob "That object has been discovered to be the Evening Star", Bob may fairly reply "What do you mean, 'discovered'? That object is known as 'the Evening Star'. Naming is not discovering, even when you name something you discover. You were not discovered to be Bill!"

This example shows that it is not always possible to say, truly, of the Morning Star, that it has been discovered to be the Evening Star. This is not

about limitations on our power to produce words. The limitation is due to our audience and our means of referring to that object, the Morning Star, and our location relative to that object. This does not mean that a certain object does not have the property of having been discovered to be the Morning Star and also the property of having been discovered to be the Evening Star and having been named 'Hesperus' and having been named 'Phosphorus' and having been named 'Venus', etc. That attempts to state these facts can cause confusion is no reason to remove the means for stating the facts.

The Morning Star is an object which has the property of having been discovered to be identical to the Morning Star. That is not the property of being self-identical or of having been discovered to be self-identical, whether or not there are such properties. An attempt to attribute the property to an audience seeing your referent in the morning and thinking of it as "the Morning Star" may fail and only confuse them. That can be remedied, if at all, by talking with them and providing background information. A sophisticated hearer with background information may get the idea right away. The idea of a perfect language which would not have such requirements on the background knowledge and the perceptive powers of the audience reflects a misunderstanding of the nature of the problem and of genuine language.

(i) Wittgenstein, in his later work, was associated with the slogan (Use) "Don't ask for the meaning---ask for the use". That was not a quotation or good translation of one. It invites the reply "You mean use in accordance with the meaning". Use in a code does not guarantee anything about the meaning of the expression used. Meaning is reflected in general rules for correct use. Classifying these rules as 'syntactic' or 'semantic' can make sense, if this is not conflated with these distinctions in application to formal systems, where they can be drawn with mathematical precision. The important point is that these linguistic rules for a natural language, which are learned in learning the language, are not logical rules. That is the sense in which the grammatical form of natural language expressions is not logical form. It is not that the grammatical forms are misleading as to the logical forms. The grammatical forms belong to the expressions themselves. Logical forms in natural languages belong to uses of the expressions, that is, to what they are used to say. This is not a matter of the meaning of the sentence plus a 'context'.

It is a point of English grammar (semantics, meaning) that it is correct to infer "John left" from "John left early". That is a "meaning rule" or "inference rule". It is a pseudo-problem about formal logical systems to 'translate' that inference so that it follows as a matter of logical rules. The English rule is not a logical rule, but a useful generalization. Whether it should be called 'empirical' or not need not be settled here. It is like empirical generalizations in that it is not a necessary, logical truth. In discussing an office meeting, someone may say "John left early" to convey that John fell asleep before the end of the meeting. One hearer may infer that John left and do so incorrectly, given their simpler understanding of the words. This is ruled out in a formal system, where hearers and their different interpretations are not merely "not essential" but not considerable at all. The natural language inference does not consist simply of the sentences, but of what they are used to say. This is not determined simply by the meaning of the sentences plus the 'context'. It is determined by the users, which includes the audience. That is why, in logical analysis, we should not focus on the meaning, but the use.

Users are guided by the 'meaning', the general grammar, so that usage is influenced by meaning. But it is not logically constrained by it. Uses are generally in accordance with meaning, but not necessarily. They can diverge and in some cases, provide powerful insights by doing so. In this way, usage (and even misusage) can exert a counter influence on meaning, making changes to meaning. What is of logical importance is what is said in a specific use. If we cannot talk to the user, or it is a legal contract case in which it is not entirely up to the user to determine what they have said, we may have to resort to general theorizing about meaning. Attention to the particular use of the sort found in philosophical dialogue may often be incompatible with the demands of practicality. Formal logic can be helpful for such efficient processing. But ultimately, logic is part of philosophy.

The grammatical (syntactic and semantic) form of expressions in a formal system is independent of users. This form allows exceptionless generalizations about logical relations between expressions based on their form. This is a great enterprise and Mathematical Logic has produced great discoveries. But paradoxes involving sentences of natural language are not solved by producing a system in which those sentences cannot occur. Wittgenstein's observation in *TLP* 4.002, that it is humanly impossible to gather directly from a study of natural language, the logic of that language, was onto something, but falls crucially short. Natural language does not have a logic. Logical connections are between what it is used to say. A formal system has rules of inference, and in axiomatic systems, axioms. A natural language

has neither. Logicians may disagree as to whether a proposed rule of inference is a correct rule. The disagreement would not be conducted in a formal language which either has the rule or does not, with a resulting unfairness to one side. It is conducted in natural language, which itself has nothing to say about the issue. A logician advocating the rule says it in a sentence. The sentence does not say anything in the relevant sense.

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CHAPTER 2

THE *TRACTATUS* AND INTERCULTURAL UNDERSTANDING

LEO K. C. CHEUNG

1. The Tractarian views of philosophy and the logic of language

A continuity of Wittgenstein's early and later philosophies, represented by the *Tractatus* and the *Philosophical Investigations*, respectively, consists in his view that philosophical utterances (questions, problems and propositions) are products of the misunderstanding of our language. A major difference between them is that in the *Tractatus* the misunderstanding is that of *the logic-governed use* of language, while in the *Philosophical Investigations the rule(-in general)-governed use.*

Wittgenstein writes in the preface to the *Tractatus*, "[t]he book deals with the problems of philosophy, and shows […] that the reason why these problems are posed is that the logic of our language is misunderstood" (*TLP** 3), and in *TLP** 4.003:

> Most of the propositions (Sätze) and questions to be found in philosophical works are not false but nonsensical. Consequently we cannot give any answer to questions of this kind, but can only point out that they are nonsensical. Most of the propositions and questions of philosophers arise from our failure to understand the logic of our language […]

In the *Tractatus*, Wittgenstein holds that our language has a general logic, presentable by means of the Fregean mathematical logic. The logic of our language can be shown perspicuously by the logical syntax of an adequate symbolism (Zeichensprache; sign-language)[1] (*TLP* 3.325, 6.124). The rules

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[1] Instead of Pears and McGuinness's translation "sign-language", I prefer Ogden's translation 'symbolism' for 'Zeichensprache'.