1 Introductory remarks

The reception of Wittgenstein's *Tractatus*[1] so far is a history with three major periods. First we have the logical empiricists, and their reading of the book as a partly positivist tract. Generally speaking, disregarding an internal division, the Vienna Circle liked what it considered the logical and mathematical stuff and disliked the mystical passages.[2] Then came the 'standard' reading: using the, or a, say–show distinction to argue that the message is that some facts may only be shown, hinted at, but not said or stated. This was a rich period, debating the various saying–showing distinctions. Then we come to the present, with the new reading, the one Conant both favours and is a major force behind. Some facts in the background of Conant's lecture are these: there are readers of Wittgenstein who see a sharp chasm, a discontinuity, between his early and later works. Other readers see a continuity. Conant falls into this second group, but distances himself from some in the group, namely those who give an irresolute reading of the early Wittgenstein.

What is an irresolute reading, and what is the opposite, the one Conant favours, a resolute reading?[3] These two key interpretational concepts come out of the study of the *Tractatus*. I shall in my remarks go no further than that text. My justification is that the major tactical notions in his lecture also come out of the *Tractatus* and the debate surrounding it. The resolute reading belongs to the third stage in the reception of the *Tractatus*. (F. P. Ramsey was an early ancestor.) The

---

1   This started out in the form of comments I gave to James Conant's lecture, Conant (2001), at the Wittgenstein Conference in Bergen, December 2001. Two reasons for this greatly expanded version are that I read an earlier version of the talk Conant gave, and that his views became clearer to me when I saw his (2002). A recording of Conant (2001) is available from the Wittgenstein Archives' website at http://wab.aksis.uib.no/wab_contrib-audio-cj-sk05.page.

2   Schlick and Waismann were the Wittgensteinians, others, such as Carnap and Neurath, were not. For a rich, historical study of the Vienna Circle, see Stadler (2001).

irresolute position is not taking seriously the fact that when Wittgenstein says his remarks are plain nonsense, he *means* it. The 'standard' reading is an irresolute reading. In Ramsey's phrase: it tries to whistle that which it cannot say. And what it tries to whistle is that which can be shown, but not said. The resolute reading, in short, is an attack on what it considers the irresoluteness in the standard reading, – its attempt to 'say' what it is we are shown. The irresolute, standard, reading believes there are truths that cannot be stated, the resolute reader denies this. The standard reading takes the saying-showing distinction to be important because both parts of the distinction are ways of presenting truths, and the showing part presents the really important ones, – the higher ones. For the resolute, no-nonsense, thinker all truths are pedestrian, there are no higher ones.

The explanation of "resolute" and "irresolute" makes use of two expressions in Wittgenstein: "elucidation" (*Erläuterung*) and "nonsense" (*Unsinn*). An important text, where "elucidate" and "nonsense" have a pivotal role, is 6.54, where Wittgenstein makes another important distinction: understanding *him*, one will come to see his *sentences* as elucidatory and nonsensical.

> "My propositions elucidate in the following way: anyone who understands me eventually recognizes them as nonsensical, when he has used them – as steps – to climb up beyond them. (He must, so to speak, throw away the ladder after he has climbed up it.)
>
> He must transcend these propositions, and then he will see the world aright."

(I use here as, everywhere, the Pears-McGuinness translation, but have modified it. The German text does not have a noun where P-M have "elucidations", it has a verb.)

Strictly speaking, Wittgenstein does not say that any of his propositions are elucidations. 6.54 says they elucidate in a specific way; it is not obvious that only elucidations elucidate. It is fairly clear that sentences, without using a sign, may

---

3   The distinction is due to Diamond, or her and Conant both. But the terms used to mark the contrast come from Warren Goldfarb (who again refers to Thomas Ricketts). See Goldfarb (1997), p. 64, for the terms "resolute" and "irresolute". Cora Diamond originally used the expression "chickening-out". In her reply to Goldfarb (1997), she accepts his words, and says this about "irresolute": it has that failure-of-courage element..also another element, a kind of dithering, which reflects not being clear what one really wants, a desire to make inconsistent demands." (Diamond (1997), p. 78) I would like here to acknowledge my indebtedness to Cora Diamond; her work on Frege and Wittgenstein reveals a very gifted writer on both.

inform us how the sign is used, or what it means. (To use an analogy: a hammer is something to hammer with, but we may hammer with other objects.) 3.263 gives a fairly regular description of what an elucidation is, as opposed to a definition. If a sentence contains a primitive, that is undefined, sign, it is an elucidation of that sign. That is, the meaning of the sign will be explained by the elucidation, which in turn will be understood only if the meaning of the primitive sign is known. Elucidations obviously operate in a hermeneutical circle. It is difficult to see what the claim in 6.54 has to do with that description. David Wiggins is a present-day philosopher much taken with the problems and possibilities connected to this classical (Frege, Russell) conception of elucidation. Frege is quoted in the main text, here is a piece from *Principia Mathematica*:

> "[W]e can only say that such and such ideas are undefined in such and such a system, not that they are indefinable. Following Peano, we shall call the undefined ideas and the undemostrated propositions *primitive* ideas and *primitive* propositions respectively. The primitive ideas are *explained* by means of descriptions intended to point out to the reader what is meant, but the explanations do not constitute definitions, because they really involve the ideas they explain". (Whitehead & Russell (1962), p. 91)

David Wiggins contrasts elucidation with *analysis*, and says that so did Frege and Wittgenstein. He says this:

> "For present purposes, it will suffice to say that an elucidation illuminates a concept by employing it in a set of true judgments that involve it revealingly and interestingly with distinct, coeval, collateral concepts". (Wiggins (2002), footnote p. 142)

The resolute reading of the *Tractatus* makes heavy use of both "elucidation" and "nonsense"; they are given such central roles in the interpretation that it is not going too far to say that to understand them has become *the* important task. One may wonder why. If the lead here is given by 6.54, then that remark does *not* say that in *order to* understand the author one should see his remarks as nonsense. The rhythm of the paragraph is that one who understands the author, is as one with him, will, by battling with his remarks, come to see them as nonsense, *after* having won over them. ("Transcend" is a weak translation of "überwinden", the German word puts iron into the metaphor of using, and discarding, the steps of the ladder.) That is why Wittgenstein can say that the book will perhaps be understood only by those who have thought the same, or similar, thoughts. The *Tractatus* is a statement

by one who has had a certain experience. How does one write about that, and about the outcome?

Without going too far (a case of that is to introduce *The Revelation of John*), do we not have examples from other walks of life? Say, soldiers' tales, Dante's *Divine Comedy*? Some of the best writers about the First World War, e.g. Graves and Sassoon, are very aware of the impossibility of telling it as it was: words that come to their literate minds are inadequate, and the closer one gets to the realities, the greater the reader's incompetence and resistance. A common happening when on leave, was that a soldier couldn't talk about the hell he came from. People at home, in general, did not have the necessary experience, – they didn't have what was needed in order to understand about the war. There was both an inability to use the proper words and to understand them.

In Dante, where the journey described is one beyond the grave, it is clear that his tale is not about a first experience (of a state of mind), but a re-experience: he found himself again in the dark woods ("ritrovai"). Or is it *again* in the sense that the telling brought it all back? Is the Comedy then about the telling of the tale? Perhaps the second time around the tale is more smoothly expressed. The reader of this text may think it is going too far to drag in examples of personal experiences: Wittgenstein, after all, is talking of thoughts, or insights. Well, perhaps the examples are stretching the point a bit. But, see the end of the essay for an example that does, I think, express Wittgenstein's insight about the ineffable. Appropriately enough, this wonderful example comes from St. Augustine.

The lesson from examples such as those above is that there is not anything general, or shared about these cases, something useful to spell out and which can help us all in such difficulties. The examples are too different, the needed experience too concrete, for that to be the case. The difficulty about telling, in the present case, is not understood by just pondering the meaning of "nonsense" and "elucidation". Nor, I believe, does thinking about those expressions give that great an insight into the details of why the tale ends up being seen as nonsense. But it is useful to be put straight about nonsense and elucidations. The resolute reading has thus done a great service to readers of the book. I am about to talk about the two words, but first some remarks about Wittgenstein's attention to nonsense.

Wittgenstein was obviously taken with "nonsense" as a philosophical term. But he was also acutely curious about the nonsense one came up with. In *Culture and Value*, a collection of remarks, all but the first dating from 1929 till 1951, there are a couple of late entries of interest. The first, dated 5.3.1947, says that one should not at all be afraid to say anything nonsensical, but one should listen to the

nonsense one utters. The second, dated 24.1.1949, says that the philosophical way of saying hello should be "take your time". These two remarks fit very well with the following recollection by Philippa Foot, of a public discussion in Oxford after the Second World War, on one of the two occasions Wittgenstein went there for such a purpose:

> "Wittgenstein interrupted a speaker who had realized that he was about to say something that, although it seemed compelling, was clearly ridiculous, and was trying (as we all do in such circumstances) to say something sensible instead.
>
> 'No', said Wittgenstein, 'Say what you *want* to say. Be *crude* and then we shall get on.' The suggestion that in doing philosophy one should not try to banish or tidy up a ludicrously crude but troubling thought, but rather give it its day, its week, its month, in court, seems to me very helpful. It chimes of course with Wittgenstein's idea that in philosophy it is very difficult to work as slowly as one should." (Foot (2001), p. 1.)

The life of the two words is more pedestrian. I shall shortly say more about "elucidation", but let me first say a bit about "nonsense".[4] That word goes with a bunch of others, all used to express extreme disapproval, here are some: rubbish, idiotic, as far from the truth as possible, absurd, not a grain of truth in it, ridiculous, too stupid for words, utter drivel, meaningless. In none of these need we assume that the utterance causing the reaction is seen as a literally senseless jumble of letters, on the contrary, it is the *opinion* that causes the reaction. (I would have liked to say that it is the opinion that a thought is expressed, that causes the reaction. But, given that it is the total sentence we see as having sense or not, to say that a sentence, not composed of non-words, is nonsensical, *sounds* like a reaction to a claimed thought. Perhaps, in saying that, I have not properly placed the logical as opposed

---

4 According to Kluge: *Etymologisches Wörterbuch,* the meaning of "Unsinn" was modelled, in the Eighteenth Century, on the English "nonsense" and the French "nonsens". Interestingly, *Kluge* says this: "Von da aus ist es unter Beihilfe der Studenten zum Kraftwort geworden wie *Blech, Kaff, Mumpitz*." *Le Petit ROBERT* explains the French word as 'failing in having good sense': *manque de bon sens.* The word "sense" is part of an important family of words. If I should venture a short characterization of nonsense it is this: an utterance lacking in sense is one which does not give us a cognitive grip on reality, that is, a nonsense sentence does not express a thought. "Sense" connects up with words for the senses, as well as words for the rational; the sensible covers both. C. S. Lewis has a good chapter on sense in his *Studies in Words.* The British have a wonderful tradition of nonsense writings, e.g. in authors such as Edward Lear and Lewis Carroll. See Elizabeth Sewell's *The Field of Nonsense* (London, 1952), detailing the logic and sense in nonsense.

to the psychological factors.) Which expression of condemnation one uses depends on social factors and personality. I can well believe of Wittgenstein that he would react to what he found an utterly unacceptable opinion by using "rubbish" or "nonsense". I can also well believe of him that his own thinking would face the same accusation. As far as the *Tractatus* is concerned, I cannot see we are there given a special sense of "Unsinn". We are given cases of nonsense, and 'technical' descriptions of those. The cases are made up of our words (signs), and we read them as meaningful; initially we all do that, and some continue to do so. What Wittgenstein considers to be nonsense, or not, is fairly clear from certain passages. A sentence in 3.24 points to, and opposes, something like a Fregean opinion:

> "A proposition that mentions a complex will not be nonsensical, if the complex does not exist, but simply false."

That occurrence is a fairly technical one, a claim that a sentence is not made nonsensical by the presence of a description mentioning a non-existing complex, in such a case the sentence is false. As far as I can judge, this is taking Russell's side in what we could construe as a disagreement with Frege, who would in such a case say that the sentence did not express a judgeable content. Another way Frege phrases his opinion of sentences containing empty proper names is that they do not express a thought, or statement, but only the possibility of one, see below, pages 20-21.

4.003 contains this:

> "Most of the propositions and questions to be found in philosophical works are not false but nonsensical.…..Most of the propositions and questions of philosophers arise from our failure to understand the logic of our language. (They belong to the same class as the question whether the good is more or less identical that the beautiful)."

In 4.1272 we find this:

> "Thus the variable name 'x' is the proper sign for the pseudo-concept *object*. Wherever the word 'object' ('thing', etc.) is correctly used, it is expressed in conceptual notation by a variable name. …Wherever it is used in a different way, that is as a proper concept-word, nonsensical pseudo-propositions are the result. …So one cannot say, for example, 'There are objects', as one might say, 'There are books'. …The same applies to the words 'complex', 'fact', 'function', 'number', etc. …They all signify formal concepts…"

This is a very interesting remark. A word is an element of a propositional sign (3.14), so it is a sign, not a symbol. (This is supported by 3.323.) So a certain sign,

e.g. 'object', is correctly used by not being used, that is, by not being present as an element! When it is used in a different way, that is, when it is present as an element of the propositional sign, then it is used as a proper concept-word, and nonsense is the result. It is reasonable to understand this as saying that when the sign 'object' occurs as an element of a propositional sign, then it is (must be) used as a proper concept-word, and nonsense results. If this is a correct reading, it must tell against the resolute understanding, since proponents of that view (those views) insist that nonsense occurs because a sign has not been given a meaning, that is, a meaningful use. The word "object" can of course be given innocuous meanings, but 4.1272 does not allow for that. In a kindred sense, the I (Ego) can only be talked of by talking of the world that is mine. The I exists because the world is as I found it, but we cannot form propositions directly about it.

Finally, in 4.1274, we have this:

"To ask whether a formal concept exists is nonsensical. For no proposition can be the answer to such a question. (So, for example, the question, 'Are there unanalysable subject-predicate propositions?' cannot be asked.)"

Some of the important occurrences are in 5.5422:

"The correct explanation of the form of the proposition. 'A makes the judgement p', must show that it is impossible for a judgement to be a piece of nonsense. (Russell's theory does not satisfy this requirement.)",

and 5.5303:

"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 at all."

In 5.5351 we read that to say 'p is a proposition' is nonsense. 5.473 says that logic must look after itself, that whatever logic permits is possible, and that any possible sign is capable of signifying; since we cannot make mistakes in logic, the reason why a string means nothing is that we have failed to give meaning to some signs. The first use of "nonsense" is in the preface:

"It will therefore only be in language that the limit can be set, and what lies on the other side of the limit will simply be nonsense."

That follows a statement to the effect that the aim of the book is to set a limit to thought, but that this must be done by setting a limit to the expression of thought, since setting a limit to thought would imply that there were thinkable thoughts on both sides of the limit, so that we would be able to think what cannot be thought. (The occurrences of "eine Grenze" are perhaps better translated as "frontier" or

"border".) Wittgenstein's meaning cannot be that a focus on *expressions of thought* will evade the absurdity of claiming to produce thoughts coming from the other side of the border of sense. His meaning must be that by going beyond the border we produce expressions (strings of signs) that are short of sense.

Wittgenstein's position on what is nonsense seems fairly clear from his examples. The complicating factor is to know when logic has taken care of itself; since a judgement cannot be a piece of nonsense, we must be able to judge when a judgement has been made. This is what it means to set a limit to thought by setting limits to the expression of thought. We cannot conclude from this that Wittgenstein thinks that any string *naturally* can be seen as meaningful, so that, if an expression lacks meaning, we just give it one. I am here, by using "naturally", opposing a liberal use of "any string can be given a meaning": of course it can, but so what? If there are no restrictions, either on grammatical category or meaning we can give an expression, then it can be given any meaning: be construed to mean whatever we wish it to mean. The problem lies in the ensuing consequences. In using a notation, we are not on every occasion of use free to specify meanings as we please.

The reason why the liberal attitude seems to be the obvious strategy, is that we always try to construe a sentence in such a way that it speaks meaningfully to us, − but it could be that we sometimes go wrong in such attributions. Wittgenstein has a combination of two positions: there *are* pieces of nonsense, and whatever is nonsense is so because we have not given a meaning to every constituent. For present purposes these two are possibly in conflict, since those sentences of his which we are told to see as nonsense, are sentences that, on the contrary, we initially see as meaningful, not as nonsense. Once we learn to see them as nonsense, we also realize that they are not sentences that we in any natural way make sense of by supplying missing meanings to the relevant constituents. Any such sense would be different from what we thought we had, when starting out. There is a tension here in the *Tractatus*. But the outline is clear: the nonsensical is the result of an attempt to express the inexpressible. However, "the inexpressible" does not denote a set of inexpressibles. The point is rather that our sentences do not always make sense, even though we may believe they do. Wittgenstein gives many examples of such nonsense. It is well to keep in mind that, in the view put forward in the body of the work, the only sentences perfectly sensible are those expressing contingent truths or falsehoods. These are the propositions of natural science, and as 6.53 says, the correct method in philosophy is to restrict oneself to saying such sentences, sentences that have nothing to do with philosophy. Any attempt to utter 'philosophical' sentences would end in uttering nonsense. Why not call this method of philosophy 'scientistic'? It is no wonder that the Vienna Circle found so much to identify with in the *Tractatus*.

2 Frege on elucidation

Now to "elucidation" and "Erläuterung". Both the English and the German word contain the root idea of making something clear, or lucid. So "clarification" or "explanation" aren't too far off, nor is "explication", which actually has been used to translate the German word. It seems an ordinary word, in both languages, and one used with an important impact in one of Wittgenstein's two most important sources of inspiration: Frege.

Frege doesn't often speak of elucidations (*Erläuterungen*), but some of the cases occur in important texts on the foundations of geometry and on logic in mathematics (see below). His uses of elucidations seem to fall into three groups: sentences with empty names can work as elucidating the use of names; sentences in prose can elucidate *Begriffsschriftliche* propositions; simple concepts, incapable of definition, can be elucidated, that is, we can hint at their content.[5] Part of Frege's position comes out in his letter to David Hilbert, 27.12.1899:

> "Every definition contains a sign (an expression, a word) which had no meaning before and which is first given a meaning by the definition. Once this has been done, the definition can be turned into a self-evident proposition which can be used like an axiom. But we must not lose sight of the fact that a definition does not assert anything but lays down something. Thus we must never present as a definition something that is in need of proof or of some other confirmation of its truth. …It is very essential for the strictness of mathematical investigations that the difference between definitions and all other propositions be observed in all strictness. The other propositions (axioms, fundamental laws, theorems) must not contain a word or sign whose sense and meaning, or whose contribution to the expression of a thought, was not already completely laid down, so that there is no doubt about the sense of the proposition and the thought it expresses. The only question can be whether this thought is true and what its truth rests on." (Frege 27.12.1899, p. 36)

This is a normative statement about the nature of science, about which kinds of proposition it should contain. The curious feature is the combination of, on the one hand, a sharp difference between definitions and the other kinds of proposi-

---

5   There is a complication in Frege's position, definitions can be given only of objects, concepts cannot be defined. Definitions are identity statements, and the identity relation holds only between objects. For concepts we must employ general statements. Still, Frege often talks of defining concepts.

tion, namely axioms, laws and theorems; and on the other hand, the turning of a definition into a proposition to be used as an axiom. His "Once this has been done" is curious, the point is obviously that definitions, once introduced, work as axioms.

In the second series on the foundations of geometry, Frege explains what he means by elucidations. He says that the use of elucidations is a practical one, they serve the purpose of furthering understanding among investigators. (A solitary investigator would have no need of them, indeed could have no need of them.)

"My opinion is this: We must admit logically primitive elements that are indefinable. ...Since definitions are not possible for primitive elements, something else must enter in. I call it explication. It is this, therefore, that serves the purpose of mutual understanding among investigators, as well as of the communication of the science to others. We may relegate it to a propaedeutic. It has no place in the system of a science; in the latter, no conclusions are based on it. Someone who pursued research only by himself would not need it. The purpose of explications is a pragmatic one; and once it is achieved, we must be satisfied with them....we can demand from the originator of an explication that he himself know for certain what he means; that he remain in agreement with himself; and that he be ready to complete and emend his explication whenever, given even the best of intentions, the possibility of a misunderstanding arises....Are Hilbertian definitions, then, elucidations? Elucidations will generally be propositions that contain the expression in question, perhaps even several such expressions; and herein they agree with what Mr. Korselt states with the following words: 'The simple concepts that are taken as basic can be determined only through propositions in which such a concept occurs several times or several such concepts occur simultaneously'. If Hilbertian definitions were to serve only the mutual understanding of the investigators and the communication of the science, not its construction, then they could be considered elucidations in the sense noted above ...But they are intended to be more. It is not intended that they belong to the propaedeutic but rather that they serve as corner – stones of the science: as premises of inferences. And given these demands, they cannot be accorded the leniency of judgement which they could have demanded as mere elucidations. Moreover, even as elucidations they miss their mark: namely to make sure that all who use them henceforth also associate the same sense with the elucidated word. We are easily misled by the fact that the words 'point', 'straight line', etc. have already been in use for a long time. But just imagine the old words completely replaced by new ones especially invented for this purpose, so that no sense is as yet associated with them. And

now ask whether everyone would understand the Hilbertian axioms and defi-
nitions in this form. It would amount to pure guess-work.....Let us turn to
proper definitions! They, too, serve mutual understanding, but they achieve it
in a much more perfect manner than the elucidations in that they leave nothing
to guess-work;...Of course they do presuppose knowledge of certain primitive
elements and their signs......The real importance of a definition lies in its logi-
cal construction out of primitive elements...The insight it permits into the log-
ical structure is not only valuable in itself, but also is a condition for insight into
the logical linkage of truths. A definition is a constituent of the system of a sci-
ence. As soon as the stipulation it makes is accepted, the explained sign
becomes known and the proposition explaining it becomes an assertion. The
self-evident truth it contains will now appear in the system as a premise of
inferences." (Frege (1906), pp. 300–02)

NB! The translators switched from "explication" to "elucidation" as English for
"Erläuterung".

Frege is crystal clear that *elucidations have no place in the system of a science. They
belong to the propaedeutic of a science.* In Frege it is clear that elucidation is opposed to
definition; where one cannot define, there one has to make do with elucidations,
or, as Frege also says, hints (*Winke*). And for Frege, basic logical elements, such as
function, cannot themselves be defined.

"*It is not possible to give a definition of what a function is, because we have here to do
with something simple and uanalysable.* It is only possible to hint at what is meant
and to make it clearer by relating it to what is known. Instead of a definition
we must provide illustrations; here of course we must count on a meeting of
minds." (Frege (1914), p. 235)

We may draw an analogy here with axioms, they cannot be given a proof, being
used as the basis for every proof. But we shouldn't draw the analogy too far: axi-
omhood, for Frege, is relative to system. What is an axiom in one system may be a
theorem in another system.[6] I do not think Frege holds 'is a basic logical item' to
be a relative ascription. So, what can we use to give a hint, a clue, as to the nature
of something that cannot be defined? Well, we may try to give an explanation, or a
comment, an example, an illustration. These are cases of what might work as eluci-
dations. The translators of Frege's *Nachlass* into English, actually translated
"Erläuterung" as "illustrative example", or as "illustration" in the quotation above,
thus confusing the function with one example of that which may work thus. (See
Frege (1914), p. 207)

One very interesting context in Frege is the following, providing a third trans-
lation of "Erläuterung":

"If an empty proper name occurs in a sentence, the other parts of which are
known, so that the sentence has a sense once a sense is given to that proper
name, then, so long as the proper name remains empty, the sentence contains
the possibility of a statement, but we do not have an object about which any-
thing is being said. So the sentence 'x is a prime number', does indeed contain
the possibility of a statement, but so long as no meaning is given to the letter
'x', we do not have an object about which anything is being said. Another way
of putting this would be to say: we have a concept but we have no object sub-
sumed under it. If we take as a further instance the sentence 'x increased by 2 is
divisible by 4' then we have a concept again. We can take these two concepts as
characteristic marks of a new concept by putting together the sentences 'x is a
prime number' and 'x increased by 2 is divisible by 4'. Under this concept
there falls only one object – the number 2. But a concept under which only
one object falls is still a concept; this does not make the expression for it into a
proper name.

Our position is this: we cannot recognize sentences containing an empty sign
the other constituents of which are known, as definitions. But such sentences
can have an explanatory role by providing a clue to what is to be understood
by the sign or word in question." (Frege (1914), p. 214)

For Frege, only objects can be defined, and only objects can be named. Thus,
when we have an elucidation of an object, and not a definition, one way this can
go is by our not naming that object. Thereby we are usually not identifying it
either. Now, let us start by giving a sentence containing an empty proper name, for
Frege these will be sentences with individual variables. His examples above are e.g.

---

6   In the posthumous paper from 1914 "Logic in Mathematics", Frege has some interesting passages
     on the relationship between (some) definitions and the statuses of axiomhood and theoremhood.
     He writes there about something that may look like a definition, but permits new proofs. In such
     a case we have not a mere definition, but one which hides content either to be proved as a theo-
     rem or accepted as an axiom. What we provide in the latter case is an analysis, not provable, but
     accepted as an axiom. He also says that an axiom may later become a theorem. The initiating
     push is provided by a distinction between definitions where the definiendum is a sign introduced
     and stipulated to have the meaning of the definiens, and definitions where the definiendum is an
     expression already in established use, and where the definiens provides an analysis of the meaning
     behind that use. It is the latter Frege sees as cases with hidden content, and thus just looking like
     definitions. (See *Posthumous Writings*, pp. 208–211)

'x is a prime number'. And these sentences (Frege calls them that, even though they are certainly not sentences expressing a thought, even in conjunction with the usual additions of context, etc.) are concept words, or as close to such as we can get. In these, as Frege says, "we have a concept but we have no object", "we do not have an object about which anything is being said". By putting some of these together, we still have only an expression for a concept, even if only one object falls under the concept. We have not given a proper name for an object, and have thus not given a definition. Frege seems to think we have given an elucidation: provided a clue as to what is understood by 'x'. But of course, in the example quoted above, we have been given more than merely a clue as to which range of objects the individual variable 'x' indicates by standing proxy for a proper name, we have actually identified an object, the only object falling under the complex concept, namely the number 2. Frege's example of sentences containing empty proper names is a good example of what Wittgenstein discusses in 3.263, quoted on page 22 below; and it goes towards explaining what he writes about in 3.24, quoted on page 14 (we simply add 'the object x such that…', to Frege's complex true only of 2, thus creating a definite description) where he also directly engages with Frege, as he does here in 5.4733:

> "Frege says that any legitimately constructed proposition must have a sense. And I say that any possible proposition is legitimately constructed, and if it has no sense, that can only be because we have failed to give a *meaning* to some of its constituents. (Even if we think we have done so.)"

Some commentators, including Conant, see a sharply focused conflict with Frege in the first two sentences. First another matter, it is reasonably clear, from the last part, that Wittgenstein sees us as capable of believing, wrongly, that something we utter is meaningful. The problem is what happens if, and when, we realize this.

Now to the conflict with Frege: what does Wittgenstein mean by "any possible proposition"? The official theory goes like this: for a proposition to have sense is for it to describe a possible state of affairs, a situation. In this sense there is an external demand to be met: a proposition is possible if it depicts a possibility. This puts it the wrong way round, according to the position Diamond presents; the correct way is: a situation is possible if it is depicted by a proposition with sense. So, we are not any closer to an answer to our question. Looking at the way Frege is presented we get the clue. Frege had indeed a conceptual notation, as a language such a notation exhibits one clear difference from a language, as this is ordinarily conceived. The latter exhibits many cases of ambiguities, and contains expressions with multiple meanings; but when we use language all, or most, of the troubles this

causes disappear, in the sense that through use we disambiguate. A conceptual notation, an ideography, do not exhibit these traits of ordinary, normal languages. Nor, I think, would notational use disambiguate *if* a notation were faulty in that way, since the notion of 'use' seems not appropriately applied to the employment of a notation. We cannot talk of different uses in such a case. So Frege, giving us a conceptual notation, makes strictures on his *Begriffsschrift*: ambiguities are banned, sentences are constructed in the legitimate ways, ill-formed sentences do not express thoughts. All this is perfectly understandable. What Wittgenstein seems to add to this is that a sentence, read as ill-formed when parsed in a particular way, may be read in another way, such as to make perfect sense. Hence examples such as "Green is green". (3.323)

It is difficult to see why, say, Frege should have deplored this; after all, their respective concerns, not to mention notations, were quite different. Frege was occupied in creating a conceptual notation, Wittgenstein with giving a proper understanding of our ordinary language. In any particular attempt to read a sentence with sense, Wittgenstein would face the challenge of reading symbols, provide the signs with sense.

Wittgenstein knew a number of Frege's publications. Through those, and quite likely other texts (*Principia Mathematica*), it is reasonable to assume he picked up the fact that elucidations were used to informally enlighten a reader about the sense and meaning of both formal language and German expressions. Here is 3.263:

> "The meanings of primitive signs can be explained by means of elucidations. Elucidations are propositions that contain the primitive signs. So they can only be understood if the meanings of those signs are already known."

What the last sentence means is unclear, especially if the remark is a comment on, or critizes, Frege. But, apart from that unclarity, it is pure Frege.

When we come to the *Tractatus*, it is obvious that elucidations play a pivotal role. In short, they are directed at 'something' unspeakable, and are meant to give us a correct view of the unspeakable. 4.112 is the second paragraph speaking of elucidations, and especially the last part is of interest. Here is the whole paragraph:

> "Philosophy aims at the logical clarification of thoughts. Philosophy is not a body of doctrine but an activity. A philosophical work consists essentially of elucidations.

> Philosophy does not result in 'philosophical propositions', but rather in the clarification of propositions.

Without philosophy thoughts are, as it were, cloudy and indistinct: its task is to make them clear and give them sharp boundaries."

'Give sharp boundaries to propositions'! In the text there is more than an echo of Frege's claim that concepts must have sharp boundaries, if they are, properly speaking, to be concepts. However, it is probable that Wittgenstein did not mean this to entail that philosophy would achieve its task in replacing sentences by others, which expressed clearly what was meant by the replaced sentences. The statement is not a demand that we should install an ideal language. The evidence for this is found in the correspondence between Wittgenstein and Ogden, who first translated the book into English. Wittgenstein is unhappy with Ogden's proposed translation of the penultimate sentence, and says this:

"The *result* must be that the prop[osition]s *now have become clear* that they ARE clear." (Wittgenstein (1973), p. 49)

This unorthodox English is a reaction to Ogden's proposal to read the end of the sentence as: "to make prop[osition]s clear". Wittgenstein's objection is that this cannot be the result of philosophy, but the task of philosophy. What the result of philosophy is, the quoted words try to express. Wittgenstein's meaning, I think, is quite clear: the work of philosophy is to make us aware that our ordinary sentences are perfectly clear. How philosophy does that is another matter.

Wittgenstein uses two expressions in connection with elucidating meaning: "sinnlos" and "Unsinn". "Sinnlos" is meant to pick up those sentences that are not expressing real, true-false propositions, those that do not depict contingent facts. The "sinnlose" sentences are the tautologies and the contradictions. This characterization is fairly uncontroversial. The difficulty enters with "Unsinn". And here a battery of different sentences come on the scene. According to the *Tractatus*, there are lots of 'things' of which one cannot speak: ethics, aesthetics, logical form. These are not contingent matters, in the world, nor the "sinnlose" limiting cases. The problem is whether anyone addressing such 'matters', is only *seemingly* doing so, while in reality just uttering empty noises.

In short, an irresolute reading of the *Tractatus* sees Wittgenstein making a distinction between two types, or uses, of nonsense (*Unsinn*). Elucidations are nonsensical in a weak sense; though strictly speaking nonsensical, they may be used to hint at something meaningful, they may be used to enlighten us as to that which is meaningful. They hint at what they cannot plainly say. For Conant, some irresolute readers see Wittgenstein, early and late, as giving us something which is then declared impossible. Others claim that some things can only be shown, as if there is

a limitation to what we are able to say. Conant goes through a battery of what he calls "standard readings", all employing a "pseudo-Tractarian" reading. According to Conant they all face a dilemma: either they are vulnerable to the "devastating charge" of presupposing the language declared impossible, or they employ a pseudo-Tractarian gambit of showing the unsayable. The gambit would be to give up the possibility of saying, in order to save the possibility of showing.

The resolute criticism of the possibility of showing what cannot be said, is strongest when addressed to matters of ethics, aesthetics and the meaning of life. But the distinction is used in the *Tractatus* also about other matters. I have not discussed what I consider the two most defensible cases of the saying-showing distinctions: the one relating to the common logical form, and the one of propositions showing their meaning.

3 Frame-content

There is another distinction involved in all this. Conant agrees with Cora Diamond in seeing the *Tractatus* as consisting of two parts: some remarks function as a frame, instructing us how to see the rest of the remarks. For Diamond the frame consists of the preface, 6.53 (with a special role: it tells us how to avoid speaking nonsense), 6.54 and 7. This frame tells us to view all other remarks in the book as elucidatory and strictly speaking as plain nonsense. The distinction was put by Cora Diamond in the following way:

> "To read the *Tractatus* with understanding, Wittgenstein tells us, is not to read it as a *Lehrbuch*. His intention is not that the book should teach us things that we did not know; it does not address itself to our ignorance. In what we might call the frame of the book – its preface and its closing sentences – Wittgenstein combines remarks about the aim of the book and the kind of reading it requires. The problems I shall discuss arise from these framing remarks." (Diamond (1991), p. 55)

Two problems stand out from the distinction as Diamond draws it: what does the frame do, and how do we, in line with this, identify the distinction between the frame and the rest of the book? When we look at *what* the frame should do, it may be that remarks, other than those in the simple frame view, as identified by Diamond, also work in such a way. We may say that the frame doesn't identify itself.

Let us call the view that the *Tractatus* consists of an instructional frame and a framed inner content which is homogenous, unstructured nonsense, for the simple frame-content view. The frame-content view is a combination of the frame-con-

tent distinction *and* the resolute (no whistling) reading of nonsense. The parody of such a view is this: read the frame propositions, and declare everything else non-sensical. The parody is not what I call the simple frame-content view. What I intend is a view where the frame propositions are identified, and then one works out that the rest is plain nonsense. How this is to be done I leave unanswered, for the indication that there possibly is a problem about judging something to be nonsense, see (Geach (1957), p. 10)

These two parts of the frame-content view do not seem independent of each other. The resolute reading requires the frame, since the frame needs to be read and acted on, – therefore the frame propositions cannot be nonsense, so they are separate from the rest. (If the remarks saying that Wittgenstein's remarks are non-sensical, themselves were to be included among those nonsensical remarks, then we would have a pseudo-paradoxical situation: moving between "some nonsensical remarks say of themselves that they are nonsense, therefore they are true and not nonsensical" and "these true remarks say they are nonsense, so they are nonsense", we can conclude the remarks are not true.) Therefore, any dispute concerning the reading of the frame will rebound on what we identify as nonsense, and possibly, also on whether we accept the resolute reading.

The position held, and defended in great subtlety, by Diamond contains one element in addition to the two parts of the frame-content view. The third part is her understanding of *what* nonsense is and her well-worked out cases showing how we may come to see that specific remarks are pieces of nonsense. These case studies are mainly her very impressive presentations of Frege, spelled out in earlier articles by Diamond. This part is the most subtle and substantial component of her position, in my opinion, but I wish here to stay clear of it. So the simple frame-content view, as I am here discussing it, is simply silent on what is nonsense. I am only concerned with discussing the frame-content distinction and the no-nonsense reading of nonsense. I am well aware that the major strength of Diamond's position may thereby be left out.

It is clear that Conant disagrees with Diamond in the identification of the frame, but it is unclear which remarks are elucidations, in his view.

"Many of the sections of the *Tractatus* to which this essay has devoted most attention – e.g. the preface, §§ 3.32-3.326, 4-4.003, 4.111-4.112, 6.53-6.54 – belong to the frame of the work and are only able to impart their instructions concerning the nature of the elucidatory aim and method of the work if recognized as sinnvoll. (Indeed, what I have just done in this note is offer a partial explanation of what § 4.112 and § 6.54 *say*.)" (Conant (2002), p. 457, footnote 135)

This open-endedness in Conant's specification of frame propositions makes it obvious that we cannot, with ease, first identify the frame and *then* read the rest as plain nonsense. A reader must read the text, identify the frame *and* the nonsense, thus reducing sharply the epistemic priority of the frame in a critical reading. Both Conant and Diamond, in their main writings, seem to subscribe to a version of the simple view. Diamond, one might say, by definition, having introduced the position, Conant by strongly advocating it. Both hold to a version where there is the instructional frame, telling us to read the rest as plain nonsense. Having said that, both authors are miles away from advocating the parody of the simple view, both are prefectly clear about the necessity of attending carefully, and closely, to the propositions making up the content.[7] The important point to grasp about any version of the simple view, as I see it, is that it makes the frame the prior constituent. Identify that, and the rest is plain nonsense. One important critical question to ask a simple view proponent is whether the content is reasonably seen as homogenous and unstructured nonsense, – especially if the epistemic priority of the frame is lost.

In general I have no strong objections directly against a resolute reading of the *Tractatus* elucidations, keeping to the dictionary understanding of nonsense, but it remains to decide where the elucidations are in the text, what they elucidate and how they do their work. The importance of this is fairly obvious, choices here decide whether something is nonsense or not.[8] Whether one should accept any version of the simple frame-content view is another matter. It may be that the "plain" in "plain nonsense", while going against a view attributing some sort of sense to the nonsense, marks a result we may only come to through hard thinking.

---

7   It is obvious that Cora Diamond attends closely to the content of the *Tractatus*, as an example see Diamond (2000). Running through that essay is a comparison of Russell and Wittgenstein, and the latter's criticism of the former; she has a very elegant exposition of Wittgenstein's fundamental idea that logical words do not represent, that there are no logical objects (see pp. 270-1).

    Conant, for instance, treats 4-4.003 as part of the frame, but not e.g. 5.62, according to the list quoted above. 4 says that a thought is a proposition with a sense. Part of 4.003 is that most of the propositions in philosophical works are not false but nonsensical, and that the deepest problems are in fact *not* problems at all. 5.62 contains this: "For what the solipsist *means* is quite correct; only it cannot be *said*, but makes itself manifest". In fairness, I have not checked whether Conant somewhere else includes 5.62 among the frame propositions.

8   I am not going to make anything out of the historical fact that Wittgenstein later in life, e.g. in encounters with the Vienna Circle, worked on problems tied to his conception of *Elementarsätze*. To put it flippantly, was he struggling to replace one piece of nonsense with another?

The hard thinking needed makes "plain" a lot less interesting as a term of textual criticism. Another critical question to ask a resolute proponent of a version of the simple view is whether the text contains just the instructional frame and the non-sensical elucidations. Must it not be seen to contain more? How are we to consider and classify the sentences of formal languages? Are they nonsense?

Both Conant and Diamond engage with the content of the text, and in each case it is natural to put almost the same question: what is nonsensical here? Cora Diamond, in her (2000) closely presents certain of Russell's views, and details Wittgenstein's objections. Now, what is the nonsense? Is it the Russellian views? Is what Wittgenstein says then nonsense because it judges about nonsense? Are Russell's opinions not nonsense, but Wittgenstein's are?

Conant details Wittgenstein's criticism of Frege, what is the nonsense here?

In his long footnote, number 135, the final in his (2002), partly quoted above, page 25, Conant develops his view on elucidations and the frame. I think it is fair to say that the amount of attention Conant devotes to this, justifies the claim that he is an adherent of a simple frame-content view. This footnote makes it abundantly clear that, for Contant, the *Tractatus* consists only of elucidations and remarks that "subserve the elucidatory aim of the work by providing the framework within which the activity of elucidation takes place." For Conant, how do we tell whether a remark belongs to the frame, or to the elucidatory body of the work? His answer is: its role within the work.

How do we tell which role a remark fulfils? Conant's reply here is interesting. According to him, the *Tractatus* teaches us that whether a remark in the book is a case of *Sinn* or of *Unsinn* depends on us, the remarks themselves are not "intrinsically either cases of Unsinn or cases of Sinn." It is up to us to manage, or fail, to perceive a symbol in the sign, so where a remark belongs depends on whether we can give it a suitable sense. At this stage, Conant introduces the metaphor of the ladder: "Many of the remarks are carefully designed to tempt a reader to find a (substantially)[9] 'nonsensical sense' in them. In order to ascend the ladder, a reader must yield to (at least some of) these temptations." The footnote ends by giving certain remarks in the *Tractatus* a triple-aspect structure, indeed a quadruple-aspect one. By this Conant means that certain remarks

---

9   This expression refers back to Conant's earlier classification of different ways of reading the *Tractatus*, in particular how to construe nonsense. For Conant, substantial readings have it wrong, they are irresolute in their dealing with nonsense.

"flip – flop between (1) (apparently) substantial nonsense, (2) mere Sinn, and (3) (what the Tractatus calls) Unsinn – i.e. between (1) a remark in which the reader (imagines she) is able to perceive a symbol in each sign but is unable to attach Sinn to the resulting combination; (2) a remark in which the reader is able to perceive a logically unproblematic proposition in the propositional sign; and (3) a remark in which the reader perceives (*erkennt*) a mere string of signs upon which no determinate method of symbolizing has been conferred."

The fourth aspect added on is: "that of *Sinnlosigkeit*." The very last words of the footnote are these:

"What sort of foothold(s) a given remark provide(s) a given reader in her progress up the ladder thus depend(s) upon the sort(s) of aspect it presents to her, and that will depend on *her* – on the use(s) to which she is drawn to put it in the course of her ascent."

There is much that could be said in reaction to the position Conant finally ends up with. Any reader of Conant must be struck by the fact that he has given up on the idea that the frame is identifiable as being certain remarks in the book, in specific places, "(say, near the beginning or the end of the book)."[10]

He is also, quite deliberately and explicitly, open to the consequence that different readers may, with full justification, operate with different frames, and consequently with different contents, and therefore, quite possibly, with different ideas of how *Unsinn* is to be understood. It is difficult in this hermeneutical attitude to find any trace of the author, who instructed the reader in how to understand *him*.

---

10   How close Diamond is to Conant on this point I find it difficult to decide. In Diamond (1991), footnote 9, she makes the correct observation that in 6.54 the German uses the verb for elucidate, while the other two occurrences in the text are nouns. From this she draws the conclusion that when a proposition is an elucidation this is a matter of context of use, not of content. Later in the note she says that propositions of natural science, when used to free someone from philosophical confusions, serve as elucidations. Diamond also claims that seeing philosophy as consisting in elucidations comes to the same as saying that philosophy is an activity. A sentence I find especially difficult is: "It is a consequence of my reading that when a sentence of the *Tractatus* is taken to express some view of its author's the sentence is not serving as an elucidation but exemplifies the confusion from which the book was meant to liberate us." If elucidations are nonsense, how are they distinguished from sentences exemplifying confusions? Is it a difference between 'knowing' and innocent propounding of nonsense? But if 'authorial view' is used such that understanding the author requires one to pick up and understand his views, then Diamond does not seem to go along with Conant in admitting the equal validity of different frames with their different contents.

Do we understand *Wittgenstein* by understanding that one man's sense is another man's nonsense? – It is of course a deep way of marking differences between people. – Conant's attitude seems to be that any way we manage to ascend the ladder is in order; we have understood the author, – as long as we give up his propositions. If proof were needed, of Conant's attachment to the simple frame-content view, it is here.[11]

4 A different take

What we need is some notion of what Wittgenstein could possibly be up to in the *Tractatus*. In order to address that issue let us stand back from Conant, and the *Tractatus*, go back in time and take a short glance at Frege. I shall here ignore everything but the German logico-mathematical background. That is, the very important role played by Russell will be ignored. Here is a small extract of an important text. In the quotation I have made some cuts in the text quoted from.

> "In science nothing capable of proof ought to be believed without proof. Though this demand seems reasonable, I cannot regard it as having been met even in the most recent methods of laying the foundations of the simplest science; viz., that part of logic which deals with the theory of numbers ...many a reader...will be frightened by the long series of simple inferences corresponding to our step-by-step understanding, by the matter-of-fact dissection of the chains of reasoning on which the laws of numbers depend, and he will become impatient at being compelled to follow out proofs of truths which to his supposed inner consciousness seem at once evident and certain. But in just this possibility of reducing such truths to others more simple, no matter how long and apparently artificial the series of inferences, I recognize a convincing proof that their possession (or belief in them) is never given by inner intuition but is always gained only by a (more or less complete) repetition of the individual inferences. I like to compare this action of thought....with the action which an accomplished reader performs in reading, this reading always remains a more or less complete repetition of the individual steps which the beginner has to take in his wearisome spelling-out; but a very small number of these steps...is sufficient to enable the practised reader to recognize the correct, true word." (Dedekind (1888), Preface to first edition, pp. 790-2)

---

11   This is a conclusion based on the texts read. As a conclusion about the author it is today, in 2006, inaccurate. Conant made clear, in a seminar in Bergen Spring 2006, that he does not consider himself a resolute reader, committed to fixed opinions on the *Tractatus*.

This brings out some idea of analysis, what a proof is, and how both are linked to thinking (reading and writing). In the preface to the second edition, Dedekind mentions the close agreement between his work and Frege's *Grundlagen*. In the introduction (*Einleitung*) to his *Grundgesetze* Frege criticizes the lack of rigour in Dedekind, but otherwise seems to see him as an ally.

My reason for quoting Dedekind is that he expresses something I believe to be quite expressible in the mathematical culture of that period, shared thoughts as it were, and therefore relevant when we specify Frege's concerns, and to that extent, the important background for Wittgenstein's own interests. And these interests should guide us in identifying what Wittgenstein is trying to achieve with the *Tractatus*.

Frege's general stance seems to preclude metalogic. Frege, we might say, is an internalist.[12] Goldfarb[13] talks of the deeply un-Fregean opinion of taking our understanding of sentences as given by semantic rules (this is the semantic stance), un-Fregean since it requires an ineliminable use of a truth predicate, which is ruled out by Frege's view on the nature of truth. (Frege does not employ a truth predicate, his horizontal bar is not that. So, he cannot use a truth predicate to spell out, say, when inferences are valid.) Goldfarb further talks of the view common to Frege and Russell, the universalist conception of logic: there is one logic that applies to everything and that is the framework of all rational discourse. According to Goldfarb, that conception has as a consequence a type of logocentric predicament – there is no stepping outside of logic.[14]

Frege construed logical truths as the most general truths there are, and as usual with Frege, truth here is scientific truth. Logical truths quantify over 'everything'; they manage to be truths by having very little of what one may call 'propositional content', instead, expressed in a conceptual notation, they exhibit places, or slots, where expressions with fuller content may be slotted in. Truths in a particular sci-

---

12   Not all Frege scholars accept this. The controversy exists partly because Frege wrote before met-alogical issues, such as consistency and completeness, became topical. So, his remarks are not eas-ily seen as opinionated about those issues.

13   Goldfarb (1997), pp. 60-1.

14   Today, for most, "logocentrism" brings to mind Derrida. In debates about Frege and Wittgen-stein the reference is to another author, the American logician Harry Sheffer. In his 1926 review of *Principia Mathematica* he said: "…the attempt to formulate the foundations of logic is rendered arduous by a …..."logocentric" predicament. *In order to give an account of logic, we must presuppose and employ logic*". *Isis,* p. 228. (I owe the reference to Thomas Ricketts, see Ricketts (1985), p. 3.)

ence are reached by employing expressions that denote suitable concepts with extensions suitable for that particular science. The employment is done by fitting these expressions into the proper slots in the logical truth, or in any truth already formed by filling in some of the slots in a logical truth.

What about Wittgenstein and the *Tractatus*? Wittgenstein had a view of logic different from that of Frege. For Wittgenstein logic was not the most universal science, but got its correct expression in the tautology, which didn't express any truth. His 6.1231 reads like this:

> "The mark of a general proposition is *not* general validity.
> To be general means no more than to be accidentally valid for all things. An ungeneralized proposition can be tautological just as well as a generalized one."

Despite this fundamental difference, logocentrism[15] is at the heart of the matter also for Wittgenstein, and he is an internalist ("the only language that I understand", 5.62, see also 4.12, quoted below, page 34) and the work is a mixture of *Begriffsschriftliche* propositions and German prose. Among other things, we have Wittgenstein giving us the general form of a proposition, and the general opera-

---

15 Internalism, logocentrism and the unavailability of the semantic stance are all woven together. If logocentrism is true, then any attempt by an internalist, one having only one language available, to give an account of logic and of language, must be put, or finally understood, in the words of his language. So, since the semantic stance requires semantic ascent, and this technically requires a metalanguage, which again may include the language studied, no semantic stance is possible. Something like this, I believe, is the short version of the position attributed to Frege and Wittgenstein. Such a description makes internalism the central position: is internalism true? Typically those who deny it do so in formal semantics, carefully spelling out mini-languages and model structures. This, in itself, should make one wary of the denial. There is no way one's language and one's world is thereby depicted. Thinking about these matters in relation to Frege it is important to distinguish logic from a particular system of logic and language from a particular language. We do for instance ask about the meaning of particular words belonging to our mother tongue, doing that we may employ quotation marks, is asking thus a case of semantic ascent? Frege's internalism seems to come out in his view of judgement, in the internal relation he sees between judgement and truth. If language, not a particular, natural, language, *expresses* judgements, then there must also be an internal relation between language and truth.

 Semantic ascent is talking about expressions; so quotation marks enter the scene. Lack of such marks crops up to bad effect in the most unlikely places. Here is a quotation from Aristotle's *Nicomachean Ethics*: "So the great-souled type has to do with honours and dishonours, in the way one should" (1123b21-2). Sarah Broadie comments: "If Ar. had had inverted commas he might have put this in the formal mode. The meaning is not that the great-souled type is preoccupied in the right way with honours etc., but that it is on account of a certain attitude to *these* things that we apply 'great-souled'" (Aristotle (2002), p. 330). Not stating or thinking that p, but having an attitude towards p.

tion whereby the natural numbers are generated. Inside that which any simple view would naturally take to be the frame, we have what possibly is the part presentation of one or more formal systems, in formal language, and many sentences in prose elucidating the systems.

If he tracked Frege on combining elucidations and formal language propositions, it wouldn't be strange for Wittgenstein to talk, as he does in 6.54, of others understanding *him*. And *he* is a man obsessed by logic and mathematics, highly skilled in diverse branches of applied physics.

The natural reading of 6.54 is to take "my sentences" to refer to the German prose, and not include formal language sentences. (As said earlier, this is a crucial point for the simple frame-content view, since it claims that everything inside the frame is elucidatory nonsense.) By claiming that his elucidatory propositions are nonsensical, Wittgenstein is implicitly saying that elucidations, in the Fregean sense (if his own propositions are elucidations in the Fregean sense that is), do not work in the way Frege claimed, that is, as partly defining *Begriffsschrift* propositions for others. He uses Frege's notion but differs in his opinion of it.

The simple frame-content view encounters a dilemma: either the author is an ironist, creating a pastiche, or we have an implausibility: a psychological profile of the author which is simply not to be believed. Would anyone simply go through all that rigmarole, − in earnest? The best strategy is probably to bite the bullet, and answer yes: Wittgenstein did set out his supposed thoughts in detail, and yes, there is nothing but nonsense in it.

What I do miss in such a simple view is something well brought out by Warren Goldfarb, in the lucid essay, Goldfarb (1997), part of a debate on Diamond's work. Goldfarb puzzles over whether nothing should happen to the reader while progressing through the *Tractatus*. And in line with the internalist stance he suggests that for the sensitive reader working through the text, certain remarks implode ("implode" is not his word), they are destroyed by their own impossibility. As examples of such remarks Goldfarb mentions statements on the notion of possible states of affairs, on logical form and on the notion of an object.[16] In each case we will have the *Tractatus* building up to certain seemingly articulated positions, which then implode from their own emptiness of content. On the Goldfarb reading the inner part of the *Tractatus* is structured, it has parts. So Goldfarb is not an adherent of a simple frame-content view. (I am not confident about his position on the formal language formulae.) The reader is carried along in a series of movements where each might almost be called Hegelian. The ladder has several rungs, to be abandoned one by one. This is my reason for saying on pages 26–27 above that the term "plain nonsense" and thereby the terms "resolute" and "irresolute" become

less important as terms of criticism. What we need to identify are the nonsensical sentences and work out how to recognize them as such. No general instruction directing us to see Wittgenstein's sentences as plain nonsense, is of much help here.

The whole work is a complex of puzzles with one correct solution, and Wittgenstein, at the end, gives the short version, the very short version, of what the sensitive reader should conclude. Wittgenstein himself concludes the preface to his work in these words:

> "If this work has any value, it consists in two things: the first is that thoughts are expressed in it, and on this score the better the thoughts are expressed – the more the nail has been hit on the head – the greater will be its value. – Here I am conscious of having fallen a long way short of what is possible. Simply because my powers are too slight for the accomplishment of the task. – May others come and do it better. On the other hand the *truth* of the thoughts that are here set forth seems to me unassailable and definite. I therefore believe myself to have found, on all essential points, the final solution of the problems. And if I am not mistaken in this belief, then the second thing in which the value of this work consists is that it shows how little is achieved when these problems are solved."

Here there is talk not only of the work containing thoughts, but also of expressing such thoughts better or worse. The important point to notice is that the value of the work is not linked to the *truths* expressed in it. The value lies in the expression of the thoughts, and the realization of how little importance the final solution they express have. Eli Friedlander has a good example of such a definite and unimportant truth:

> "5.5563: In fact, all the propositions of our everyday language, just as they stand, are in perfect logical order. – That utterly simple thing, which we have to formulate here, is not a likeness of the truth, but the truth itself in its entirety." (Friedlander (2001), p. 9)

---

16   Commentaries on the *Tractatus* regularly puzzle over positions in the book. Modestly, in my thesis for the degree of magister artium (1965), I attempted to destroy the book's concept of object, by arguing that it makes no sense to say that an object could enter into different states of affair. A view at least strongly suggested, but perhaps not plainly stated in the *Tractatus*. See e.g. 2.022 and 2.071-2. My main proposal was that the notion of *Elementarsatz* is a misleading attempt to express formal features languages have to conform with. This is not to claim that any one previously had the clear focus on nonsense typical of the resolute reading.

If the resolute reading has it in the bag then there aren't any truths expressed in the book. Inside the frame, that is. And there aren't any thoughts either. It is hard to see how this squares with the two passages just quoted.

Other interventions, apart from the frame instructions, complicate matters for the reader. In a letter to his friend Ludwig von Ficker, mid-October 1919, Wittgenstein writes:

"My work consists of two parts: the one presented here plus all that I have *not* written. And it is precisely this second part that is the important one. My book draws limits to the sphere of the ethical from the inside as it were, and I am convinced that this is the ONLY *rigorous* way of drawing those limits. In short, I believe that where *many* others today are just *gassing*, I have managed in my book to put everything firmly into place by being silent about it." (Quoted from McGuinness (1988), p. 288)

This letter has had a substantial impact on Wittgenstein interpretations. A number of things are interesting about the letter. Firstly, being written after the book, it expresses the author's opinion of what he did, not his intentions while composing the work. Secondly, it expresses a supreme confidence, what we might call 'the Cambridge confidence': I am convinced this is the only rigorous way, everything is put firmly into place, others are only gassing. Thirdly, we have the 'pseudo-logical' attitude: the ethical can be delimited in a rigorous way. The combination of logician and silent mystic is unbeatable.

Wittgenstein's definitive attitude could very likely be that the logical form language and the world share, i.e. the form of reality, is not 'anything' one may state; it expresses itself in language, and that which language expresses, we cannot express. (4.121):

"Propositions cannot represent logical form: it is mirrored in them.
What finds its reflection in language, language cannot represent.
What expresses *itself* in language, *we* cannot express by means of language.
Propositions *show* the logical form of reality.
They display it."

4.121 is an interesting paragraph. The beginning makes the distinction between what language, or a sentence, depicts or represents, on the one hand, and, on the other, what is mirrored or reflected in language. What is mirrored is logical form. Which fits in very well with 4.12:

"Propositions can represent the whole of reality, but they cannot represent what they must have in common with reality in order to be able to represent it

– logical form. In order to be able to represent logical form, we should have to be able to station ourselves with propositions somewhere outside logic, that is to say outside the world."

Note that the second sentence expresses Wittgenstein's logocentrism. Another point of interest is the use of "the logical form of reality" in 4.121 and, by implication, in 4.12. These occurrences link up with similar ones in the presentation of the 'picture theory'. The problem that arose in the reception history was that a fair number of commentators read these remarks in such a way that Wittgenstein had presented two realms that matched up: one of them, reality, has a logical form, independently of language and thought. And language can represent reality because the two of them have the same form.[17] *Especially* within the general stance of 'it is all nonsense', it is difficult to see why Wittgenstein should talk of reality that way. Here is a possible influence that points to a far more innocuous understanding of what is involved in saying that reality has a logical form. According to Thomas Ricketts, Frege's universalist conception of logic (an interpretation of Frege going back in modern times at least to van Heijenoort's classic 1967 essay "Logic as Calculus and Logic as Language") means that reality obeys the laws of logic, they are truths about it.[18] This could be seen as giving reality the required restrictive influence on our possible ways of talking, and on our chances of reflecting reality in our talk.

Wittgenstein said earlier, in 4.022, that a sentence shows its sense, which depicts a possible situation, and says this to be the case. 4.022 doesn't use "darstellen"; the contrast it draws is between "show" ("zeigen") and "say" ("sagen").

"A proposition *shows* its sense.
A proposition *shows* how things stand *if* it is true. And it *says* that they so stand."

---

17 For what probably is such an understanding of the book, see, for instance, Max Black (1964). For a rebuttal of such a way of reading the book, see Rhees (1969). David Pears, a powerful interpreter of Wittgenstein, presents the Tractarian position as realistic, in the sense that reality presents, independently of us, a set of possible states of affairs; these impose necessary consequences on our thinking of the world. (See Pears (1987), e.g. pp. 8 – 9.)

18 See Ricketts (1996), p. 123. Ricketts is there contradicting this assertion by Michael Dummett: 'Reality cannot be said to obey a law of logic; it is our thinking about reality that obeys such a law or flouts it.' (The quotation is from Dummett's *The Logical Basis of Metaphysics*, Harvard University Press, Cambridge, Mass. (1991), p. 2.)

4.12 seems to be about something else, namely what language cannot represent ("darstellen"). But 4.121 brings in something else again, it ends by saying that what expresses itself in language, we cannot express by means of language. And, then it ends with this:

> "Propositions *show* the logical form of reality.
> They display it."

We need a distinction here, so that (sentential) sense and logical form of reality can be set apart. 4.12 says that any sentence ("Der Satz") can represent the whole of reality, but that it cannot represent what it has in common with reality, i.e. logical form. Here we have a contrast, all it needs is that sentential sense is the same as what the sentence represents. And that equivalence is given us by 4.031:

> "Instead of, 'This proposition has such and such a sense', we can simply say,
> 'This proposition represents such and such a situation'."

Combining all this, it seems that 4.121 contains an undeclared difference, and possibly a conflict: a sentence shows its sense, it shows how things stand if it is true (4.022); furthermore a sentence shows the logical form of reality (4.121). Since one point in 4.022 is that *sense* is the same as *how things are if the sentence is true* (see also 4.024: "To understand a proposition means to know what is the case if it is true"), the upshot seems to be that a sentence shows something it cannot represent, i.e. the logical form of reality. Since it also shows its sense, which can be represented, and logical form is mirrored in language, and thus not representable, the logical form of reality is not a part of (sentential) sense. So, a sentence must show more than its sense. From this the following seems to follow: if what expresses itself in language is also shown by (in) sentences, then sentences show more than their sense (the more is the logical form of reality); but *that* part of what they show, viz. the part they cannot depict, we cannot express, since what *we* can express is limited to what our sentences have as their sentential sense, what they depict. [19]

It is not necessary to put too much into the use here of "part". We may say, *pace* my choice of words, that the logical form of reality is not *outside* sentential sense. Instead, we can say that when sense is *shown*, logical form isn't shown, it isn't visible. But still, it is there, in that which is shown. Locutions such as "what is

---

19   The whole complex of issues is further complicated by going to 3.13: "A proposition, therefore, does not actually contain its sense, but does contain the possibility of expressing it".

shown" are ambiguous: they either pick out the 'object' shown, or the content seen. We may easily specify which object is seen without claiming that everything of that object is seen, or even visible. It is natural to read "shown" as implying "visible". Returning to sentential sense, when that is shown, we are shown an articulated structure, not all details need be visible, nor, so to speak, the structural lines holding it together. I prefer, however, to hold to the simple phrase "part".

We can look upon this as a filling-out of the contrast stressed between understanding the author and understanding his sentences. Wittgenstein is indeed struggling to express something which expresses itself in language, but which he (we) cannot (use language to) express. It is no wonder that how he expressed himself is claimed as one of the two things of value in the book, nor that the insignificance of the truths put forth is the second. What is it that we cannot express *in language*? Well, to repeat, we cannot express, state, anything that language cannot represent. What expresses itself is precisely what we cannot express.

This reading makes sense, but only if not both "show" is univocal and "express" takes that sense of "show", if it does, we cannot express sentential sense either. (This is the possible conflict mentioned above.) That "express" has the sense of "show", is at least indicated by passages such as 3.1:

> "In a proposition a thought finds an expression that can be perceived by the senses."

My whole reading depends on taking "show" to mean something different in 4.121:

> "Propositions *show* the logical form of reality",[20]

and in 4.022:

> "A proposition *shows* its sense."

If "show" is not ambiguous, then at least we have to recognize that sentences show items of different categories, some of which, sense, they can represent, and some they cannot: the logical form of reality. The logical form of reality expresses itself

---

20   It is difficult to see 4.121 either as a frame paragraph or as nonsensical, it seems to contain some truths, which, once seen, are among those characterized by Wittgenstein in his preface. It is further, the paragraph where we see what sort of reason Wittgenstein could give for stressing the contrast between understanding him versus understanding his sentences. This could mean that "express" in 4.121 is more crucial to understanding Wittgenstein than are the various occurrences of "show".

in language, but it is not something that can be represented, so it cannot be shown the way sense can, nor can sentences say: this is how it is. So we cannot say what the logical form is through language either: *we* cannot say what it is. But we can use language that lets the logical form of reality express itself. Any possible sentence, one where all constituents of the sentence have been given meaning (*Bedeutung*), will do that. And we cannot express ourselves through language in any other way. So, finally, we cannot say that there is something that expresses itself in language, but which we cannot say. If we wish, the logical form language shares with reality is not something *stateable*. This is, however, not to live with a restriction in what it is possible to say, there isn't anything we cannot say. The way this is meant, so it is. The limits of my language are the limits of my world. Our understanding of this remark, and of 'my language' in particular, can only improve if we look in two other directions.

Here comes the first. There are at least two separate issues linked to 'my language', one is *what* it is, the second is the connection between 'my language' and Wittgenstein's logocentrism. My language, my only language, seems to be the notational resources I use to think, i.e. what I project onto the world. Beyond that, however one tries to identify my language, one thing is pretty clear. We see the inadequacy of trying to identify a natural language as 'my language'. For, if it were so, the expressive resources, concepts in a non-Fregean sense, of our (my) language would be restricted; because it hardly makes sense, i.e. it is obviously false, to assert of any natural language that it has the conceptual resources to express 'everything'. Natural languages differ, and none has the combined resources of all. (What the conceptual resources of a language are, is unclear: here I am merely thinking vaguely of its descriptive predicates.)

I see "no natural language has the combined resources of all" as expressing an empirical claim, a proposition easy to hold true, but perhaps not totally clear in what it claims. A modal version: "no language could have the combined resources of all", is harder to hold true. Here is my thinking. Natural languages differ in their vocabularies, and it is not obvious that every saying, of every speaker, is translatable into every other natural language, as a possible saying there. But this doesn't entail a conflict between two speakers. Speakers do disagree, also speakers of the same language. This doesn't entail a conflict between languages, or inside one. Indeed, it is unclear how languages could be in conflict, as opposed to just being different. What it would require is that a language had in its vocabulary an expression, such that, were an expression with the sense of imported into another language, then sentences using that expression properly would come out true, but would also con-

tradict other sentences of that language, hitherto held true, *and continued to be held true*. In order for this to be the case, the sense- of- would need to contradict the sense of another expression in the importing language, that is, the sense -of- would carry in it the negating force of the sense of that other expression. 'Negating force' means obviously *not* this: if this apple is red then it is not blue, so the true application of "red" excludes the true application of "blue". How a language could contain a pair of mutually other-sense-negating expressions is a mystery. The sense of one expression would actually discredit the sense of the other: rubbish it. If a situation does not exhibit such co-existence, then we have the usual business: conceptual changes and changes in, and conflicts about, the truth value of some sentences. And none of that excludes, in principle, the realization of a language that grows to ingest the total conceptual resources of all other natural languages. (Whether such a phenomenon is likely, is another matter, since languages express dominant features in their societies; it would need to be the language of a linguistic community reflecting an *amazing* culture. Beyond such a language lurks the truly all-encompassing language: one expressing absolutely all facts. An incoherent idea, − since "facts" would also cover possible facts. And who knows what thinking mankind will grow into accepting.)

Let us now look in the second direction in order to improve our understanding of the remark about the limits of my language being the limits of my world. Let me first quote the remark in its proper setting, here is 5.62:

> "This remark provides the key to the problem, how much truth there is in solipsism.
>
> For what the solipsist means is quite correct; only it cannot be *said*, but makes itself manifest.
>
> The world is *my* world: this is manifest in the fact that the limits of *language* (of the only language that I understand) mean the limits of *my* world."

(NB! I have changed the translation of the parenthetical remark. Pears-McGuinness has "of that language which I alone understand".)

The remark referred to in the first line is probably the last sentence of the previous paragraph, 5.61:

> "We cannot think what we cannot think; so what we cannot think we cannot *say* either."

Also of interest is the first sentence of 5.61:

> "Logic pervades the world: the limits of the world are also its limits.",

as is this, 5.6:

"*The limits of my language* mean the limits of my world.",

and this, 5.63:

"I am my world. (The microcosm.)"

The fit between me and my language, and my world, can be understood in a more pedestrian way than the literal reading of the previous exposition leads us to believe. This new approach will give a more metaphorical reading of expressions such as 'my language' and 'my world', and it ends up with a denial that a literal exposition is possible. We quite naturally say things such as: 'this opened up quite a new world for me', and 'what I saw was undescribable, nothing had prepared me for it', as well as 'I simply didn't see what was going on'. All these expressions, and plenty more like them, suggest that on the one hand we have a world, what there really is, on the other we have me and my language, trying to cope with it and understand it. What this second reading of Wittgenstein's remarks suggests is that this contrast, this picture of an independent world, one I only partly understand, is a picture that cannot be represented, it isn't stateable, certainly not be *me*; I cannot *claim* that there is more than what I see and understand. Such a claim would have to come out of my understanding, and the content of the claim would be that I understand there is more to understand than what I understand. Such a claim would be totally non-specific, it would not fulfil the condition of being a true-false proposition, it would not represent anything in my world.

But then, perhaps, to say all *that* about me, my world, 'my language' and its relation to the natural language of which one happens to be a native speaker, is also nonsense, according to the Tractarian teaching. And the reason must be that for Wittgenstein, there is no position 'outside' of language to study language. In the words of John McDowell, we cannot get a 'sideways view' of our own language: that is, we cannot watch ourselves using language, in the sense of studying what makes it possible for me to use 'my language' to represent the world. As expressions, both 'outside view' and 'sideways view' are metaphors, a literal expression could be difficult to find. The idea behind the use of the metaphors must be that the expressiveness of language, that utterances are expressions, is manifested through the use of language. Any expression shows its own expressiveness, but what is shown cannot be put forward any other way, it cannot be represented. So, a sideways view is not only impossible, it would also be unnecessary: a sideways description, were it possible, could not do anything more than what is given us in just using language. A reasonable understanding of what seems to be happening

inside the frame of the *Tractatus* is just that somebody is presenting something claimed to be a representation of something seen from a view sideways on.[21]

And now, as a final flourish, the view close to expressing Wittgenstein's own, promised on p. 12:

> "Have we spoken or announced anything worthy of God? Rather I feel that I have done nothing but wish to speak: if I have spoken, I have not said what I wished to say."

> Whence do I know this, except because God is ineffable? If what I said were ineffable, it would not be said. And for this reason God should not be said to be ineffable, for when this is said something is said. And a contradiction in terms is created, since if that is ineffable which cannot be spoken, then that is not ineffable which can be called ineffable. This contradiction is to be passed over in silence rather than resolved verbally." (St. Augustine, *On Christian Doctrine*, I, VI)

This excerpt provides the main points: I wish to speak of the ineffable, but have I spoken? If so, I have not said what I wished to say. If anything is unsayable there is no 'it', or 'what', we can say is unsayable. We should be silent about what cannot be said. – It is very satisfactory to let a major philosopher have the final word.

---

21 Wittgenstein is sometimes compared to Kant; when we read in 5.631 about writing a book *The World as I found it*, this sounds like Kant when he writes in the *Critique of Pure Reason,* B 42, on speaking *from* the human standpoint. This is empirical realism, a proper employment of our concepts. But Kant also talks *about* the human standpoint, this is transcendental idealism. The comparable stance in early Wittgenstein must be the remarks in the body of the *Tractatus*; remarks which are declared nonsensical by its author. Kant wrote explicitly about human experience, saying that certain judgements were not valid if we transgress our subjective condition. Without our forms of sensibility reason is left on its own, but Kant does not consider it nonsensical for reason to employ concepts in judging that, transcendentally speaking, say, space is nothing. If one propounds the simple frame–content view, there must be a limited interest in comparing Wittgenstein and Kant, since the chances of finding them deeply similar are sharply reduced by holding that view.

References

Aristotle (2002), *Nicomachean Ethics*, translated by Christopher Rowe, Introduction and Commentary by Sarah Broadie, Oxford University Press, Oxford 2002.

Augustine, St., *On Christian Doctrine*, translated by D. W. Robertson jr, Prentice-Hall, 1997, (originally 1958).

Black (1964), Max, *A Companion to Wittgenstein's Tractatus*, Cambridge University Press, Cambridge 1964.

Conant (2001), James, "Why worry about the *Tractatus*?", lecture given at the conference on Wittgenstein in Bergen, "Wittgenstein Research Revisited", December 12–15, 2001. A recording is available from the Wittgenstein Archives' website at http://wab.aksis.uib.no/wab_contrib-audio-cj-sk05.page.

Conant (2002), James, "The Method of the *Tractatus*", in Erich H. Reck (ed): *From Frege to Wittgenstein*, Oxford University Press, New York 2002, pp. 374–462.

Dedekind (1888), Richard, "Was sind und was sollen die Zahlen?", translated, carrying the German title, in William Ewald: *From Kant to Hilbert A Source Book in the Foundations of Mathematics*, Vols 1–2, The Clarendon Press, Oxford 1996, pp. 787–833.

Diamond (1991), Cora, "Ethics, Imagination and the method of Wittgenstein's *Tractatus*", *Wiener Reihe*, Band 5, 1991, pp. 55–90.

Diamond (1997), Cora, "Realism and Resolution: Reply to Warren Goldfarb and Sabina Lovibond", *Journal of Philosophical Research*, Vol. XXII, 1997, pp. 75–86.

Diamond (2000), Cora, "Does Bismarck have a beetle in his box? The private language argument in the Tractatus", in Alice Crary & Rupert Read (eds): *The New Wittgenstein*, Routledge, London and New York, 2000, pp. 262–292.

Foot (2001), Philippa, *Natural Goodness*, Oxford University Press, Oxford, At the Clarendon Press, 2001.

Frege (1899), Gottlob, letter to Hilbert 27.12.1899, translated in Gottlob Frege: *Philosophical and Mathematical Correspondence*, Basil Blackwell, Oxford 1980, pp. 34–38.

Frege (1906), Gottlob, "On the Foundations of Geometry: Second Series", translated in Gottlob Frege: *Collected Papers*, Basil Blackwell, Oxford 1984, pp. 293–340.

Frege (1914), Gottlob, "Logic in Mathematics", translated in Gottlob Frege: *Posthumous Writings*, Basil Blackwell, Oxford 1979, pp. 203–50.

Friedlander (2001), Eli, *Signs of Sense*, Harvard University Press, Cambridge Mass., 2001.

Geach (1957), P. T., *Mental Acts*, Routledge & Kegan Paul, London 1957.

Goldfarb (1997), Warren, "Metaphysics and Nonsense: On Cora Diamond's *The Realistic Spirit*", *Journal of Philosophical Research*, Vol. XXII, 1997, pp. 57–73.

McGuinness (1988), Brian, *Wittgenstein A Life Young Ludwig (1889 − 1921)*, Duckworth, London 1988.

Pears (1987), David, *The False Prison*, Vol 1, Oxford University Press, Oxford, At the Clarendon Press, 1987.

Rhees (1969), Rush, "'Ontology' and Identity in the *Tractatus* à propos of Black's *Companion*", in Peter Winch (ed): *Studies in the Philosophy of Wittgenstein, Routledge and Kegan Paul*, London 1969, pp. 51–65.

Ricketts (1985), Thomas, "*Frege, The* Tractatus*, and the Logocentric Predicament*", Nous 19, 1985, pp. 3–15.

Ricketts (1996), Thomas, "Logic and Truth in Frege", The Aristotelian Society, Supplementary Volume LXX, 1996, pp. 121–40.

Stadler (2001), Friedrich, *The Vienna Circle Studies in the Origins, Development, and Influence of Logical Empiricism*, Springer Verlag, Wien and New York, 2001. (German original Suhrkamp Verlag, 1997)

Whitehead & Russell (1962), *Principia Mathematica* to # 56, paperback ed., At the Press, Cambridge, 1962.

Wiggins (2002), David, *Needs, Values, Truth*, Third Edition, Emended, Clarendon Press, Oxford, 2002.

Wittgenstein (1921), Ludwig, *Tractatus Logico-Philosophicus*, translated by Pears & McGuinness, Routledge and Kegan Paul, London 1961.

Wittgenstein (1973), Ludwig, *Letters to C. K. Ogden*, edited by G.H. von Wright, Basil Blackwell, Oxford, 1973.