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One *Tractatus Logico-philosophicus*: Necessity and Normativity

Greg Taylor

Honors Thesis

Macalester College 2007

Committee: Janet Folina (advisor), Joy Laine, Jeffrey Johnson

This thesis is dedicated to Janet Folina, a friend who – more than anyone else – has helped me think. I would also like to thank the Macalester Philosophy faculty and the members of Mac Thought for their frequent stimulation and support.

Abstract

This thesis sketches an interpretation of Wittgenstein's *Tractatus* centering on his treatment of necessity and normativity. The purpose is to unite Wittgenstein's account of logic and language with his brief remarks on ethics by stressing the transcendental nature of each. Wittgenstein believes that both logic and ethics give necessary preconditions for the existence of language and the world, and because these conditions are *necessary,* neither logic nor ethics can be normative. I conclude by erasing the standard line drawn between his philosophy and his ethics, and redrawing it between the philosophical and artistic presentations of his thought, the latter being what remains after the nonsensical status of the work is recognized.

Meine Methode ist es nicht, das Harte vom Weichen zu scheiden, sondern die Härte des Weichen zu sehen.

My method is not to sunder the hard from the soft, but to see the hardness of the soft.

-Wittgenstein, January 1915

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Abbreviations

The *Tractatus Logico-philosophicus* (1921) and *Prototractatus* are simply cited according to the numbering in the text. The following works are abbreviated (full bibliographical information is provided in the works cited):

Frege, *Begriffsschrift* (1879)	BGS
Frege, *The Basic Laws of Arithmetic* Volume I (1893)	BL
Frege, *The Foundations of Arithmetic* (1884)	FA
Frege, *Posthumous Writings*	PW
Frege, *On Sense and Meaning* (1892)	SM
Russell, *The Philosophy of Logical Atomism* (1918/1985)	PLA
Russell, *Theory of Knowledge* (1913/1984)	TN
Russell and Whitehead, *Principia Mathematica to *56* (1910)	PM
Wittgenstein, *A Lecture on Ethics* (1929)	LE
Wittgenstein, *Letters to C.K. Ogden*	LCK
Wittgenstein, *Letters to Russell, Keynes and Moore*	WL
Wittgenstein, *Notebooks, 1914-1916*	NB
Wittgenstein, *Notes Dictated to G.E. Moore in Norway* (1914)	NDM
Wittgenstein, *Notes on Logic* (1913)	NL
Wittgenstein, *Philosophical Investigations* (1953)	PI
Wittgenstein, *Some Remarks on Logical Form* (1929)	RLF

One *Tractatus*

The facts all contribute only to the setting of the problem, not to its solution. (6.4321)

If one were to read only the secondary literature on the *Tractatus Logico-philosophicus*, it would almost be reasonable to conclude that there were two Wittgenstein's, each of whom published a separate treatise of the same name. One finds a treatise on logic, language and their limits, which has a central location in the development of analytical philosophy, and one also finds a set of mysterious and mystical musings, which, while having little influence on the philosophical canon, have nonetheless been important culturally. These "two" treatises can be thought of as two poles on a scale of interpretation. While most commentary lies somewhere in between these two extremes, the vast majority of it is much closer to the logical pole, the most extreme example of which is perhaps Carnap's reading. He says of his logical empiricist view as outlined in *The Logical Syntax of Language* that it "is in general agreement with [Wittgenstein's], but goes beyond it in certain important respects." (Carnap 1936, 282) On this view Wittgenstein puts forward a positivist philosophy in the *Tractatus,* and in conclusion rejects ethics and metaphysics as nonsensical.

Reacting to precisely this, surely unsatisfactory, interpretation, Allan Janik and Stephen Toulmin published *Wittgenstein's Vienna* in 1973. They cleave a distinction between "ethical" and "logical" interpretations of the book, and criticize the attempt – in both the positivists and later commentators[1] – to treat the ethical conclusion of the book as a mere

[1] Specifically Max Black (1964) and Elizabeth Anscombe (1971; originally 1959).

afterthought. They argue, in response, "that, in order to understand the book in a way which coincides with Wittgenstein's own intentions, one must accept the primacy of the 'ethical' interpretation." (Janik and Toulmin 1973, 25) To justify their interpretation, they note that Paul Engelmann, who "was in close contact with Wittgenstein during the very period when the book was written," had a fundamentally ethical interpretation of the book.[2] But while their rhetoric is usually of reconciling the logician with the ethicist, their actual argument distinguishes between Wittgenstein's *logical methods*, which are mere "technical advances" of little actual importance, and his *philosophical ideas*, which are essentially ethical.

Wittgenstein himself gives support to both sides. Janik's and Toulmin's best evidence is a letter from Wittgenstein to Ficker, a prospective publisher:

> The book's point is an ethical one. I once meant to include in the preface a sentence which is not in fact there now but which I will write out for you here… What I meant to write then, was this: 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… For now, I would recommend you read the *preface* and the *conclusion*, because they contain the most direct expression of the point of the book. (in Engelmann 1967, 143-144)

This is a direct statement about the point of the book from Wittgenstein himself, and it cannot be ignored. But corresponding to Janik and Toulmin's evidence in Engelmann for the ethical interpretation, analytical commentators can look to Ramsey and his logical interpretation. Ramsey spent weeks discussing the *Tractatus* with Wittgenstein in 1923 for hours a day, and *their* discussions were about the logic of the book. There are also letters to C.K. Ogden regarding the English translation, and many to Russell, all of which concern mostly logic. And most importantly, there is the fact that every source from Wittgenstein in

[2] See Engelmann's *Letters from Ludwig Wittgenstein with a Memoir* (1967), especially pp. 94-118.

the early period contains substantial work on logic. It would seem quite strange for Wittgenstein to completely devote and exhaust himself for eight years on "mere techniques." What makes up the vast majority of the *Tractatus* is unquestionably the culmination of those years of thought.

Wittgenstein's introductory remarks to his 1929 "A Lecture on Ethics," given in Cambridge immediately after his return to philosophy, can help mediate the dispute. In that lecture, Wittgenstein stresses how central ethics is for him, and says, "if I was to have the opportunity to speak to you I should speak about something which I am keen on communicating to you and I should not misuse this opportunity to give you a lecture about, say, logic." (LE 37) It is clear that ethics is of prime importance for Wittgenstein, but it is not his only concern; he immediately continues, "I call this a misuse, for to explain a scientific matter to you it would need a course of lectures and not an hour's paper." (*Loc. Cit.*) These two sentences reflect the same point made in the letter to Ficker – it is not that the ethical preface and conclusion are all that matters; it is simply that the logic is much more difficult to understand, and the explicitly ethical remarks contain a more *direct* expression of the point of the book.

The goal of this thesis is to try to unite the ethical and logical aspects of the *Tractatus* into a seamless whole. Without the work in logical philosophy, there could be no ethical conclusion to the *Tractatus*, and *as the conclusion* to the logic, the ethical points must receive attention if the logic is to be understood. To argue for this conclusion, I track the interplay between necessity and normativity first in logic, and then in ethics.

Let us look to the preface. Wittgenstein writes, "the whole sense of the book might be summed up in the following words: what can be said at all can be said clearly, and what we cannot talk about we must pass over in silence." Notice the *duality*. On my

interpretation, logic and ethics stand together in Wittgenstein's philosophy, but both of them are opposed to his mysticism. These two aspects – philosophy and mysticism – are captured by the first and second clauses of Wittgenstein's summary, respectively. "What can be said at all can be said clearly" summarizes Wittgenstein's work in logical *and* ethical philosophy; "what we cannot speak about we must pass over in silence" marks the death of a philosopher and the birth of a mystic.

The duality that characterizes Wittgenstein's summary of the book pervades the entire preface. He remarks that "the point of the book is to draw a limit to thought, or rather – not to thought, but to the expression of thoughts."[3] The two sides of this limit, the sayable and the mystical, correspond to the two part summary: on one side of the line is the sayable, on the other is that about which we must remain silent. Again, the same duality appears in the statement that "if this work has any value, it consists in two things." Dealing with the two values in turn, the first consists in that "thoughts are expressed in [the book]," the truth of which "seem unassailable and definitive." The first three chapters of this thesis will argue that Wittgenstein's work in philosophical logic culminates in his presentation of the general form of a proposition, which is meant to explain how "everything that can be said at all can be said clearly." At this point, Wittgenstein is supposed to have carried the project of philosophy *to its completion*, achieving "on all essential points, the final solution of the problems."

My argument for how Wittgenstein is able to achieve such sweeping results with a single logical construction is to demonstrate how he attempts to collapse all of the disparate areas of philosophy into logic. Beginning in the first chapter, I show that metaphysics and philosophy of language are brought together, and that Wittgenstein draws the limits of sense

[3] This issue receives full attention in chapter II.

in philosophy of language. Standing *precisely on the border* between sense and nonsense are tautology and contradiction, which constitute the propositions of logic. Thus, given that the purpose of the book is to draw precisely this limit, we see that logic is central to the task.

Before addressing Wittgenstein's logic directly, the second chapter reads the *Tractatus* against the backdrop of Kant's and Frege's philosophy of logic. These three philosophers stand in various relations to one another in logic; here I focus only on three connections. The first is that, because of Frege's influence, Kant's critique of pure *reason*, becomes – in Wittgenstein – a critique of *language*. Second, Wittgenstein and Kant disagree with Frege in that they hold that logic is purely formal and empty. And most importantly, whereas Kant and Frege both see logic as *prescriptive* – as giving laws in accordance with which one *ought* to think, the *philosophical* status of Wittgenstein's logic should be more closely identified with Kant's *transcendental* logic. Just as it would be absurd for Kant to tell us that we *ought* to judge in accordance with his table of categories, because he argues we do so of absolute necessity, it becomes absurd for Wittgenstein's logic to tell us how we *ought* to speak. While Kant's philosophy attempts to give the necessary preconditions for empirical knowledge, Wittgenstein's logic attempts to give the necessary preconditions for linguistic truth. Logic is, Wittgenstein tells us, *transcendental*. (6.13)

The third chapter addresses Wittgenstein's philosophy of logic, and then attempts to show how all of the metaphysical, semantic, and logical points made thus far are captured in the presentation of the general form of a proposition. In giving the general form of a proposition, Wittgenstein gives "the nature of all being," (NB 39) thus concluding his philosophy with unparalleled elegance.

But there still remains the "second thing in which the value of the work consists:" "it shows how little is achieved when these problems are solved." To return to the letter to

Ficker, we also need to address the "second part of the book," that which *isn't there*, or, at least, is hinted at in closing: "what we cannot speak about we must pass over in silence." (7) My interpretation of this side of the book, sketched in the concluding chapter, is inspired by relatively recent scholarship labeled "the new Wittgenstein."[4] The one point that seems to bind all of these scholars together is their conviction that a reader must take the nonsensical status of the *Tractatus* seriously. While pressing a fundamentally negative point – that we can't literally "understand" the philosophy of the *Tractatus* – these new interpreters simultaneously open up new possibilities for studying the book *as a text*, instead of as a set of philosophical assertions. We need to ask, not what philosophy we are left with, but what the book is attempting to accomplish.

Nonetheless I break from this group.[5] One of the most influential of these interpreters is Cora Diamond, and consideration of the opening section from her "Ethics, Imagination and the *Tractatus*" crystallizes the break. She begins with a discussion of the remark in the preface that the *Tractatus* is not a textbook, writing, "His intention is not that the book should teach us things that we did not know; it does not address itself to our ignorance." (Diamond 1991, 149) In further developing her interpretation of this point, she connects it with 6.54: "My propositions serve as elucidations in this way: anyone who understands me finally recognizes them as nonsensical…" She notes the fact that Wittgenstein writes "he who understands *me"* and not "my propositions." (*ibid*, 150)[6] In short, to "understand" the *Tractatus* is to understand *Wittgenstein*, and to understand *Wittgenstein* is to realize that one cannot say the sort of things that he tries to say in the *Tractatus*.

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[4] See especially Diamond (1991) and Crary and Read (eds) (2000).
[5] For a critique of this new exegetical tendency, see Hacker's article in the Crary and Read (2000).
[6] Mounce (1981, 101) makes the same observation.

Let us return to the textbook remark in the preface, but in its full context: "Perhaps this book will be understood only by someone who has himself already had the thoughts that are expressed in it – or at least similar thoughts. – So it is not a textbook. – Its purpose would be achieved if it gave pleasure to one person who read and understood it." The remark that forms the basis for Diamond's reading is surrounding by sentences which contradict her view precisely. Wittgenstein writes that the book expresses thoughts, and that one can read and understand *it*. (Furthermore, immediately following the sentence quoted in 6.54 Wittgenstein returns to discussing the understanding of the *book*.) The point of the textbook remark seems to be rather that Wittgenstein is not concerned with pedagogy.

We find ourselves in an awkward situation. I argued that Wittgenstein completes a philosophical project, but that we – following Diamond and company – must recognize the fact that its presentation is nonsensical. To resolve the difficulty, consider the following letter written by F.P. Ramsey while he was staying with Wittgenstein in 1923: "His idea of his book is not that anyone by reading it will understand his ideas, but that some day someone will think them out again for himself, and will derive great pleasure from finding in this book their exact expression." (in LCK 78) Wittgenstein's belief, at this later date, that nobody will understand his ideas appears to be a mere increase in the pessimism already expressed in the preface. ("[In the expression of my thoughts] I am conscious of having fallen a long way short of what is possible.") What is important about this letter is that Wittgenstein believes that one must *work through the ideas* for oneself, which, again, is reinforced by the textbook remark. Therefore, one can't simply shrug off the logic. As Wittgenstein puts it at 6.54, the reader must "climb out through them, on them, over them… He must transcend these propositions." It is only in climbing first "through them," and then "on them," that one can climb "over" them and see that they are nonsensical. If we – like the new Wittgensteinians –

denounce them as mere babble, then we lose the very grounds for declaring them to be so. If the *Tractatus* really is just "austere" nonsense (as Conant calls it),[7] then so is Wittgenstein's distinction between sense and nonsense in the first place.

Janik and Toulmin divide the *Tractatus* into logic and philosophy (i.e. ethics). The line needs, rather, to be drawn between logic (i.e. philosophy) and mysticism. And most importantly, both sides of the line find expression in the *Tractatus* and they are mutually dependent. In the first three chapters, I argue that all of the major areas of philosophy[8] collapse into logic. The opening sections of the final chapter argues the same point for ethics. Ethics, like logic, is a necessary *condition* of the world, standing outside its limits. If we return to the letter to Ficker, Wittgenstein remarks that he "limits the sphere of the ethical from the inside." This is *exactly* how he characterizes his logical work, as drawing a distinction between sense and nonsense by working through what *can* be said. Ethics stands philosophically with logic, both of which are necessary conditions of the world, and as such, contain absolutely no normative force.

It is in seeing *this* – that nothing of importance is accomplished via philosophy – and, furthermore, that philosophy is an attempt to express the ineffable, that we are able to pass from 6.54 to 7. But only *after* we have worked through the philosophy of the book are we able to abandon it; only after climbing the ladder may we throw it away. In doing so, one ceases to be a philosopher. Thus the *Tractatus*, after it is *understood* as a treatise on logical philosophy, ceases to be one, and becomes an expression of Wittgenstein's unique mysticism. The concluding section will argue that this *process* is contained in the text of the *Tractatus* itself; the ultimate purpose of the book is to present a transition from philosophy to mysticism.

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[7] This is the central claim in Conant (2000).
[8] Except, of course, epistemology, which Wittgenstein shrugs aside as psychology. (4.1121, 5.541 and NL 106)

I. Sense, Nonsense, and Senselessness[9]

*"*That *is how a picture is attached to reality; it reaches right out to it."* (2.1511)

1. Wittgenstein's world

Most people believe that the world is made up of things. Philosophical dispute then arises as to whether those things are material objects, sense impressions, ideas, instantiations, posits, constructions, or something else. Some ambitious philosophers also include properties, forms, relations, or concepts, which – usually – are understood as categorically distinct from things. Wittgenstein rejects the position of the ontologically gluttonous by espousing a thoroughgoing nominalism, but, paradoxically, he also rejects the thing-ontology: "(1) The world is all that is the case. (1.1) The world is the totality of facts, not things."[10] This is not to say that Wittgenstein denies that there are things. Rather, things can *only* exist as combined into facts. They are metaphysically exhausted through being so combined, and they contribute nothing else to the world. A traditional view, if willing to posit facts at all, would most likely take *them* to be exhausted through their being combinations of *things*.[11]

Proposition (1) contains a separate important point: that the world is *all* that is the case. It appears again in 1.1 with the "*totality"* of facts. In 1.11 Wittgenstein finally adds the

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[9] I translate "sinnlos" as "senseless", instead of the usual "lacks a sense."
[10] When passages quoted from the *Tractatus* or *Prototractatus* span multiple numbered remarks, number citations occur inside quotation marks.
[11] This position is in stark contrast to much contemporary metaphysics, revolving around Tarskian truth-based semantics. According to this view, all we need to posit is what falls in the domain of our quantifiers, and we can construct a semantics for canonical expression while quantifying only over sequences of objects and taking an extensionalist view of relations between them. That is, only objects need to exist for our sentences to be true. This is precisely the opposite of Wittgenstein's theory of truth, which revolves around facts and propositions, neither of which have any place at all in the Tarskian view.

emphasis himself: "The world is determined by the facts, and by their being *all* the facts." The point here is that the world is not just another thing, or another fact – it is a totality *of* facts. As we are told at 1.2, it *divides into* facts, each of which "can be the case or not be the case while everything else remains the same." (1.21)

Facts are separate entities which *together* constitute the world, but they are declared here (and again in 2.061-2.062) to be independent of one another. The question before us is: how can facts be both independent and related to one another? Let "P" indicate "water is heavier than ice" and "Q" indicate "Wittgenstein is the author of the *Tractatus*." These two facts are independent of each other in the sense that it is possible for each of them to be the case independently of the other.[12] If ice were to sink Wittgenstein could still have written the *Tractatus*. But, in order for us to be able to talk about *both* of them, to say "P is the case and Q is not the case," there must be some connection – a *logical* connection – between them, which allows them to be considered in relation to one another.[13] In order for the facts to determine a world they must be related to each-other; this relation is a purely logical relation. Thus Wittgenstein is simultaneously an atomist and a holist, but in different domains: with regard to everything which is *contingent* (whether or not the facts actually are the case), facts are atomistic, but there must still be some *necessary* logical connection between them. What this necessary connection is will be explained presently.

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[12] Wittgenstein rejects belief in the causal nexus as "superstition." (5.136-5.1361) His positive account of causality parallels the present point about logic: it gives a form for describing the world, it is not something true of the world. (6.32-6.321)

[13] The point is similar to that made by Kant in § 16 of the *Critique of Pure Reason*, where he argues that all of our representations, even if independent of one another, must stand in a necessary relation to our self-consciousness, so that we can consider them as our own representations and they can form a totality. (B 132-133) (Throughout this thesis the first *Critique* will be cited according to the standard A/B pagination.)

What I've said so far is not entirely accurate; we need to understand Wittgenstein's technical terminology.[14] In proposition 2, he begins to abandon the ordinary use of "fact" and gives it a definition: "What is the case – a fact – is the existence of states of affairs." Note the plural. Facts are, more or less, what we might immediately associate with the term: the book being on the table, New York being in America, water being heavier than air, etc… Consider the fact that New York is in America. This is *complex* – in order for it to be the case there has to be an America, and there has to be a New York. Furthermore, both of these entities can only exist if a number of other facts obtain: the geography, the architecture, the law, etc… all have to stand in certain relations to one another in order for this fact to exist. Dissecting a fact (or a proposition which expresses a fact) in this way is called *analysis*.[15]

According to Wittgenstein, states of affairs are what we find when this process comes to an end. States of affairs are simple facts; facts are groups of states of affairs in logical relation to one another. Wittgenstein draws a similar distinction between "things" and "objects." Just as macro facts consist of complex *things*, atomic states of affairs consist of simple *objects* that "fit into one another like links of a chain" (2.03).[16] States of affairs are not simply a *list* of objects; they stand to one another in a determinate way (2.031)[17] and "the

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[14] Ramsey wrote while staying with Wittgenstein, "Some of his sentences are intentionally ambiguous having an ordinary meaning and a more difficult meaning which he also believes." (in LCK 78)

[15] This obviously stems from Russell. While the paradigm of Russellian analysis was first established in his 1905 "On Denoting", his use of it in *The Philosophy of Logical Atomism* (1918) is much closer to Wittgenstein's. The most important difference is that Russell's view is *empiricist*. Pears' introduction contains a good discussion of Russell's relationship to Wittgenstein in this work, seeing them as exemplifying the traditional empiricist and rationalist categories. (Pears 1985, 1-34)

[16] Wittgenstein writes of this remark to C.K. Ogden, reinforcing the *nominalism* in his view, "Here instead of "hang on one another" it should be "hang one in another" as the links of a chain *do*! The meaning is *that there isn't anything third* that connects the links but that the links *themselves* make connection with one another. So if "in" in this place is English please put it there. If one would hang *on* the other they might also be glued together." (LCK 23)

[17] This type of "hanging together" needs to be sharply distinguished from things relating to another in what we call a "relation" (particularly as it occurs in Russell's "theory of relations"); although the distinction is often blurred in translation, in German Wittgenstein always uses different words for the two: "*Beziehung*" for the

determinate way in which objects are connected in a state of affairs is the structure of the state of affairs." (2.032) Macro facts are not independent of one another: a macro fact is only true if the members of a set of other facts have certain truth-values; but states of affairs are independent of one another.

Just as what I said early about facts really only applied to states of affairs, what was said about things applies only to objects. For it is objects, understood as the *logically simple* constituents of the world (2.02), which are "metaphysically exhausted" through being in states of affairs. "Things" is a more general term; it refers to objects, but also to those more mundane things that *we* call "things." The important difference between the two is that the more mundane things are *complexes*, that is, they *just are* sets of facts.[18] This book that is on the table is actually just the conjunction of a whole series of facts. By stating how each bit of paper and ink relates to each other bit, and then how each fiber in the paper relates to each other fiber, etc… we describe the book completely.[19] Eventually this analysis reaches the states of affairs made up of simple objects.

Earlier I argued that Wittgenstein is both an atomist and a holist; it is in this relationship shared by states of affairs in logical space that this becomes clear. And this relationship is explained with objects. Wittgenstein writes at 2.0122, "Things are independent in so far as they can occur in all *possible* situations, but this form of independence is a form of connection with states of affairs, a form of dependence. (It is impossible for words to appear in two different roles: by themselves, and in a proposition.)" The facts P and Q are independent of one another in that the objects that make them up might, or might not, stand

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relationship between objects in states of affairs, and "*Relation*" for "relation." Pears and McGuinness occasionally also translate the former as "relation," which can cause confusion.

[18] See 2.0201 and 3.4

[19] Note that I have given a *physical* analysis of the book. I have done so only for simplicity; Wittgenstein nowhere requires that analysis of material objects be physical. The constituent facts might also involve the *role* a book plays (i.e. is written, is read, etc..).

to one another in such a way that the facts exist. But they are *logically* connected through the fact that objects *can* occur in them, for "Logic deals with every possibility and all possibilities are its facts." (2.0121) This *possibility* of occurring in a state of affairs – the necessary (2.012) and internal (2.01231) properties of an object – is what is dealt with by logic. Consequently, Wittgenstein calls it an object's *logical form*. (2.0141)

It would be difficult to elucidate his metaphysics completely while relying only on the explicit discussion thereof. The parenthetical remark from 2.0122 quoted in the previous paragraph, which seems somewhat out of place, gives us a hint about where to look in order to make these views clear. In that passage he is discussing metaphysics, but he makes a remark about words and propositions. We have seen so far that the world is made up of facts, not things, and that facts reduce logically to states of affairs, which consist of logically simple objects. Precisely this same structure is present in language, and so we can turn to Wittgenstein's theory of meaning in order to fill in the rest.

2. Truth, falsity, and representation of sense

Wittgenstein's theory of meaning is first and foremost a representational theory, spelled out through the notion of *picturing*. In its most basic form, the idea is that propositions are meaningful because they picture facts in the world: the proposition "the cup is on the table" pictures, or represents, the cup *being* on the table. The fact that is pictured is part of what Wittgenstein calls the *sense* of a proposition.

The most obvious problem with this view is this: what if the cup *isn't* on the table? This is a problem for both negative and false propositions.[20] If a proposition represents a fact, and it isn't a fact that a cup is on the table, it isn't clear what the proposition could

[20] Russell was still working on this problem in 1918, unwilling to decide whether or not to posit negative facts. (PLA, 74-79)

represent. Wittgenstein was plagued by this problem in the early stages of the development of the picture theory, writing, "That shadow which the picture as it were casts upon the world: How am I to get an exact grasp of it? Here is a deep mystery. It is the mystery of negation: This is not how things are, and yet we can say *how* things are *not*." (NB 30)

In the *Tractatus,* he addresses this problem with the notion of logical space. A situation in logical space can be understood as analogous to an object in physical space, with a crucial caveat: whereas physical space is composed of *actual* situations, logical space is composed of *possible* situations.[21] By making all pictures – true and false – represent only *possible* situations, the unique problem for false propositions disintegrates. This sentiment is expressed at 2.22: "What a picture represents it represents independently of its truth or falsity." A proposition pictures a possible fact – whether it is true or false – and then *after* we know which possible fact it pictures do we look to see *if* the fact is actual. In other words, only once we know what the picture pictures, we can ask whether it is a true or a false picture.

It might seem that, instead of addressed the problem for false propositions, Wittgenstein has made true ones problematic as well. The issue was that there is nothing in the actual world to be represented by a false or negative proposition. Declaring the non-existent situation to be just as possible as the existent one doesn't explain what it is that is represented by a picture; in fact, it explicitly states that there *isn't* anything actual that is represented. The question is this: how can we picture possibility?

Imagine a world composed of just six objects, named "a," "b," "c," "d," "e," and "f." For simplicity, let us assume that the only possible combinations of objects are in pairs,

[21] Also logical space isn't limited to the material world; Wittgenstein neither affirms nor denies the existence of abstract facts.

and that all pairs of non-identical objects are possible combinations. A map of logical space could then look something like this:[22]

	a	b	c	d	e	f
a			X			
b						
c						
d					X	
e						
f		X				

This map depicts what Wittgenstein calls *reality*. The *actual* part of reality (those boxes marked with an "X") is *the world*. If it seems strange that he would call all possible states of affairs reality, note that *all of the objects actually exist*, just not in all possible combinations.[23] Objects are the substance of the world (2.021): they "are what is unalterable and subsistent; their configuration is what is changing and unstable." (2.0271) It is precisely this that explains false pictures: they picture possible combinations of actual objects: "in a proposition a situation is, as it were, constructed by way of experiment." (4.031) Which simple objects exist is never in flux; all change in the world is the result of objects combining and recombining. Because all pictures latch on to the substance of the world, even false pictures represent reality. Understanding a false picture, then, is to know that the actual objects mentioned *could* be in the situation that is pictured. To check whether or not that situation is the case is not to come to understand the picture, but to check its truth-value.

[22] Fogelin uses a similar sort of table. See Fogelin (1995), 8.
[23] It would be a mistake to see Wittgenstein as affirming that all possible worlds therefore share the same ontology (as is the case for most modal systems which treat only of logical necessity). The reason is that Wittgenstein's ontology – *and his semantics* – is fact based, not object based, and which possible facts exist is exactly what varies from world to world. Objects are the *substance* of the world, not what makes it up.

The explanation is easily extended to negative pictures. I said earlier that the fact pictured is *part* of what Wittgenstein calls the sense of a proposition. It is only a *part* because whether the picture is intended affirmatively or negatively is included in the sense of the picture. As Ansombe explains the point, we could hold up a picture of the book on the table and say either "this is how things are" or "this is how things aren't". (Ansombe 1959, 69) Or, as is more common, we could just say "the book is on the table" or "the book is *not* on the table." Thus Wittgenstein says at 4.0621: "But it is important that the signs 'p' and '~p' *can* say the same thing. For it shows that nothing in reality corresponds to the sign '~'… The propositions 'p' and '~p' have opposite sense, but there corresponds to them one and the same reality." The same point is already given in the 1913 *Notes on Logic*: "In my theory p has the same meaning as not-p but opposite sense. The meaning is the fact." (NB 95)[24]

Thus while *truth and falsity* are completely independent of a proposition's pictorial status, *positive and negative* assertion are essential to it. This is the point of the aphorism "Names are like points; propositions like arrows – they have sense." (3.144) Even more clearly, and introducing us to the notion of *showing*, Wittgenstein writes, "A proposition *shows* how things stand if it is true. And it says *that* they do so stand." (4.022) The sense of a proposition is the possibility of affirmation or negation of a possible fact situated in logical space. An affirmative proposition is true if the fact does exist, viz. if the objects are so combined; it is false otherwise. A negative proposition is true if the objects are not so combined.

[24] Stated in this way, the position is a critique of Frege's notion of sense. This issue will be addressed directly in section 4 of chapter II.

3. Logical form: from sense to nonsense

Much of the beauty of the *Tractatus* lies in its being both painstakingly complex and remarkably simple. Nowhere is this clearer than in Wittgenstein's explanation of *how* a picture represents a fact. The thesis is simple: a picture "reaches right out" to reality. This occurs through a correlation of the names in the picture and the objects in the state of affairs – these correlations are, in his words, "the feelers of the picture's elements, with which the picture touches reality." (2.1515) Explaining this passage to C.K. Ogden, Wittgenstein writes, "here by 'Fühler' I mean the things which a butterfly has." (LCK 24) A proposition lands on reality, so to speak, making contact with a particular part of it. He calls this correlation the *pictorial relationship*. [*Abbildende Beziehung*].[25] But *beneath* this relationship lies a subtle distinction between *form* and *structure*. And it is *here* that picturing is really explained.

Let us have another glance at the map of logical space from the previous section, with a few small changes:

	a	b	c	d	e	f
a			X			
b						
c						
d					X	
e						
f		X				

Logical space is depicted by the map as a whole *without* any of the Xs filled in. Reality is the whole map but *with* the Xs filled in. The world consists of *only* the boxes marked with an X;

[25] As with the relationship among objects in a state of affairs, pictorial relationships (also called "Beziehungen" – see note 13) are distinguished from relations proper. Indeed, Wittgenstein's famous criticism of Russell's relational theory of judgment draws precisely this distinction. Hanks (2007) gives an excellent treatment of this criticism, arguing that it is based on Wittgenstein's demand for the unity of a proposition, and not on type theory (as has often been supposed).

in this case the states of affairs ac, de, and fb. In other words: logical space is the totality of possibilities. Reality is the totality of possibilities plus the determination of which possibilities are actual. And the world is the totality of actualities (all that *is* the case).

This map leaves only certain possibilities open (symbolized by the white boxes). Any combination of an object with itself, plus the combinations af, be, da, and fc are impossible; all of the rest are allowed. Some objects are able to combine in both directions (i.e. ab and ba), while some aren't (fa is legitimate, af isn't). In this map, I have arbitrarily stipulated the logical form of the objects, but in reality form is not arbitrary. Wittgenstein holds that the *logical form* of an object is "written into the thing itself." (2.012) Being spatial, temporal, musical, or colored are forms of objects. Wittgenstein expresses this at 2.0131: "A speck in the visual field, though it need not be red, must have some color; it is, so to speak, surrounded by color space. Notes must have *some* pitch, objects of the sense of touch *some* degree of hardness, and so on." We saw already that objects make up the unalterable substance of the world, and now that the form of an object is *internal* to it. The form is the essence of the object; it makes the object what it is. Therefore substance "is form and content"; (2.025) it is the objects themselves *plus* their possible combinations in logical space.

Wittgenstein asserts at 2.141 that "a picture is a fact" and then at 2.15 elaborates the notion of picturing:

> That the elements of the picture are combined with one another in a definite way, represents that the things are so combined with one another.
> This connection of the elements of the pictures is called its structure, and the possibility of this structure is called the form of representation of the picture.

A picture is a fact with a certain structure, and this fact represents another fact that has the same structure. If we were to add a language to the world depicted in our map, we would need to also include the names (which are objects too) "a", "b", and so on. Then "ab"

would picture *ab*; "df" would picture *df*. But if this explains what a picture *is*, it doesn't explain *how* a picture pictures. And in a sense, the answer is quite simple: "a" is correlated with a; "b" with b, etc… Recall that these correlations of names with objects are the "feelers… with which the picture touches reality." If we ignore that left/right seems to be a complex relation, "ab" pictures *ab* because "a" is correlated with a, "b" with b, and in the picture "ab" "a" stands to the right of "b," just as their objects stand to each-other in the state of affairs.

We appear to have a complete explanation of picturing – one structure represents another through a correlation of names with objects. But Wittgenstein continues in 2.15, "What a picture must have in common with reality, in order to be able to depict it – correctly or incorrectly – in the way that it does, is its pictorial form." (2.17) So far we have left *form* entirely out of the picture. But it is clear that Wittgenstein sees it playing some role in the process. As he put it in 1929, "I have said elsewhere that a proposition 'reaches up to reality', and by this I meant that the forms of the entities are contained in the form of the proposition which is about these entities." (RLF 34) There are two reasons why the simple explanation using only structure above is inadequate.

The first was already indicated in the previous section: if a picture is to represent a situation that doesn't actually exist, the elements of the picture must be correlated with actual objects, and *furthermore,* those objects must have the possibility of being combined like the elements of the picture. And since *both* affirmation and negation are part of the sense *in addition* to the situation pictured, for all sentences, the picturing is made possible by a common form. Only after this form has allowed a situation to be pictured can we ask about the truth or falsity of a sentence. And "asking about the truth or falsity of a sentence" is precisely looking at the objects in the world to see if they *are so combined*, that is, looking to

see if they *have that structure*. Form is the possibility of structure, and propositions represent possibility. If we restrict ourselves to structure, the solution to the problem of false sentences dissolves.

The second reason form is important is pointed out by Ramsey (1923, 271-274) and was more recently addressed by Ricketts (1999, 73-75). As we move from elementary propositions and states of affairs to every-day sentences and facts, all similarity of structure seems to dissolve. The way that the words "cup" and "table" are related in the proposition "the cup is on the table" bears absolutely no similarity to the relation between the cup and the table in the corresponding fact. And Wittgenstein does think of everyday sentences as pictures. (4.011) He says at 4.016: "In order to understand the essential nature of a proposition, we should consider hieroglyphic script, which depicts the facts that it describes. And alphabetic script developed out of it without losing what was essential to depiction." What is "essential to depiction" is having pictorial *form* in common. As Ricketts puts it, "In order for names to go proxy for objects in sentences, it must be fixed what possibilities of combinations of names into sentences present what possibilities of combinations of objects into states of affairs." (Ricketts 1999, 75) These possibilities are an object's, and a name's, logical form.

We can explain what this notion of "fixing" appealed to by Ricketts by returning to our simple language from above. As it stands, "af" refers to *af*, "cd" to *cd*, etc… But we could, for example, reverse this relationship, such that "af" refers to *fa*. The point is that the *form*, not the *structure*, of the proposition is important. By reversing this relationship we

dissolve any relationship of structure between "af" and "fa", but we are still able to picture the fact because we have fixed which possibilities correspond to which possibilities.[26]

Wittgenstein explanation of the point uses geometrical metaphor of *projection*. (3.11-3.13; see also 4.011-4.0141) His explanation of projection in the 1929 *Some Remarks on Logical Form* is particularly clear:

> Let us imagine two parallel planes, I and II. One plane I figures are drawn, say, ellipses and rectangles of different sizes and shapes, and it is our task to produce images of these figures on plane II. Then we can imagine two ways, amongst others, of doing this. We can, first, lay down a law of projection – say that of orthogonal projection or any other – and then proceed to project all figures from I onto II, according to this law. Or, secondly, we could proceed thus: We lay down the rule that every ellipse on plane I is to appear as a circle in plane II, and every rectangle as a square in II… Of course, from these images the exact shapes of the original figures on plane I cannot be immediately inferred. We can only gather from them that the original was an ellipse or a rectangle. In order to get in a single instance at the determinate shape of the original we would have to know the individual method by which, *e.g.*, a particular ellipse is projected into the circle before me. The case of ordinary language is quite analogous. (RLF 20)

The first method of projection would be analogous to the relationship between elementary propositions and states of affairs; the second corresponds to the more complex relationship between ordinary propositions and facts. It is slightly deceptive to talk about *fixing* these projection rules, because it is not something that we explicitly choose to do. "The tacit conventions on which the understanding of everyday language depends are enormously complicated." (4.002) How our language actually developed is, for Wittgenstein, an empirical – not a philosophical or logical – question. But, in order for propositions to be able to picture possible facts at all, these "tacit conventions" must serve as rules of projection which map our propositions onto facts.

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[26] Janik and Toulmin stress this point, translating "Wir machen uns Bilder der Tatsachen" (2.1) as "we *construct for ourselves* pictures of facts", stressing the *active* role. (1973, 144; 183-184) The point stems from Engelmann (1976), 99-101.

Wittgenstein uses this idea to define nonsense. With regard to elementary propositions the explanation is remarkably simple: in our map of logical space some states of affairs were "prohibited" – they weren't contained within the forms of the objects. There the explanation is forced, in that I arbitrarily shaded in some boxes. But let us imagine that we had adjusted our language such that "a" stands for *b*, "b" stands for *c,* and so on. Now imagine that we were to say "af". Since the objects stop at *f*, our new rules of projection assign no meaning to the sign "f". We *might* have stipulated that it loops back and stands for *a*, but we didn't. "af" is therefore a bit of nonsense. We can define nonsense, then, as a string of signs[27] that violates logical form – there are no rules governing their combination.

When we extend this definition to ordinary language the situation becomes much more ambiguous. Because the conventions that project our propositions onto reality are tacit, we are prone to use words in improper ways. "The reason why 'Socrates is identical' means nothing is that there is no property called 'identical.' The proposition is nonsensical because we have failed to make an arbitrary determination, and not because the symbol, in itself, would be illegitimate." (5.473) We simply haven't conventionally stipulated any meaning for "identical" as an adjective; we haven't fixed a possibility of its being combined so as to correspond to a possible fact. The proposition is therefore nonsense. But there is one more complication for ordinary language. It was already noted that ordinary propositions and ordinary facts reduce to elementary propositions and states of affairs. It follows that whether or not a proposition is nonsense will always – even in the case of ordinary propositions – depend on the elementary ones. Wittgenstein explains this with the notion of the truth-function.

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[27] Wittgenstein distinguishes between sign and symbol. A sign is a written or spoken piece of language that doesn't necessarily stand in any representational relation; a symbol is "any part of a proposition that characterizes its sense." A proposition is itself a symbol. (3.31) Therefore nonsense can only be composed of signs, not symbols.

4. Truth-functions: from sense to senselessness

Wittgenstein says at 5, "A proposition is a truth-function of elementary propositions. (An elementary proposition is a truth-function of itself.)" But the account of the truth-functional nature of propositions actually begins a bit before 5, starting with the introduction of a *truth-possibility*, which is simply the possibility of a proposition's being true or false. The truth-possibilities for an elementary proposition are the existence and non-existence of its single corresponding state of affairs – it thus has two truth-possibilities, which we can symbolize by (T) and (F). At 4.4 Wittgenstein says, "A proposition is an expression of agreement and disagreement with truth-possibilities of elementary propositions," which is simply to say that a complex proposition is a truth-function of elementary propositions, understood as pictures. The complex proposition "p & q" has four truth-possibilities: (TT), (TF), (FT), and (FF); only in the first case is the whole proposition true. "p → q" has the same truth-possibilities, but is true in all cases except the second. To return to the previous example, "that book is on the table" is true only if all of the constituent propositions mentioned above are true. "Page 2 is on top of page 3," "the cover surrounds the pages," etc… have to be true for it to be *that* book; similar constituent propositions are required for the table, and perhaps also for the relation "is on." Those constituent propositions are also truth-functions of simpler propositions, and so on, all the way down to simple concatenations of names (elementary propositions).

There are two extreme cases of truth-functions:

> In one of these cases the proposition is true for all the truth-possibilities of the elementary propositions. We say that the truth-conditions are *tautological*.
> In the second case the proposition is false for all the truth-possibilities: the truth-conditions are *contradictory*.
> In the first case we call the proposition a tautology; in the second, a contradiction. (4.46)

Each proposition is either true or false. If it is an elementary proposition this is the end of the story. But for complex propositions the truth-tables become important. Complex propositions are also simply either true or false, but there are different *ways* in which they can be true or false. These are symbolized by the various lines on the truth-table. If all of those combinations yield truth, the proposition is a tautology; if they all yield falsehood, the proposition is a contradiction. Here there is no ambiguity, and on this point alone Wittgenstein deserves much credit, as it is the first explicit *logical* definition of tautology,[28] achieved through the introduction of the truth-tables.[29]

There are two explicit discussions of tautology and contradiction in the *Tractatus*; one in terms of the picture theory, and one in terms of truth-functions. Let us begin with the truth-functional account. The remarks follow a discussion of what it means for one proposition to follow from another, which is deeply rooted in the truth-functional nature of propositions. This discussion begins at 5.11: "If all the truth-grounds[30] that are common to a number of propositions are at the same time truth-grounds of a certain proposition, then we say that the truth of that proposition follows from the truth of the others." Wittgenstein's intention is to eliminate the need for inference rules – to show that one proposition's following from another is the result of an *internal* relation between the propositions.[31] For example, "p → q" and "-p v q" follow from each-other not because of

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[28] Russell wrote even in 1919, "For the moment, I do not know how to define 'tautology.'" This passage contains a footnote: "The importance of 'tautology for a definition of mathematics was pointed out to me by my former pupil Ludwig Wittgenstein, who was working on the problem. I do not know whether he has solved it, or even whether he is alive or dead." (Russell 1919, 205) He expresses the same importance of, and the same inability to define, tautology in PLA 107-108.

[29] E.L. Post had also come up with the truth-tables independently; furthermore, the idea was already in Frege in all its essentials, in that he defines the logical connectives through truth-conditions (BGS 115-124). Nonetheless, neither of them connected the definitions to tautology or contradiction, precisely because neither of them noticed the extreme importance of tautology and contradiction.

[30] "Truth-grounds" are "those truth-possibilities of [a proposition's] truth-arguments that make it true." (5.101)

[31] He says at 5.132, "The nature of the inference can be gathered only from the two propositions. They themselves are the only possible justification of the inference. 'Laws of inference', which hare supposed to

an inference rule, but because both are true in all cases except when p is true and q is false. Likewise, "p" follows from "p & q", because the only truth-ground for the latter is when both p and q are true, in which case p is also true. But "p & q" doesn't follow from "p", because the only truth-ground for "p" ("p" being true) leaves open both truth-possibilities of "q".

First consider 5.14, about which the tautology propositions are comments: "If one proposition follows from another, then the latter says more than the former, and the former less than the latter" (supposing they aren't equivalent). Then Wittgenstein says, "A tautology follows from all propositions: it says nothing". (5.142) Imagine a proposition with the *smallest possible sense*; it says something so simple that it can't be broken into parts (an elementary proposition). Call it "p". The intuition here is simple – from "p" we can still infer the tautology "p v ~p", but by the explanation of logical implication given above, this means that "p v ~p" must be contained in "p". Since one can say nothing simpler than an elementary proposition, it follows that "p v ~p" must say nothing.

With contradictions the situation becomes slightly more complicated. With the distinctive restlessness of the *Notebooks*, Wittgenstein points out a problem:

> But then! Won't contradiction now be the proposition that says the most? From 'p & ~p'[32] there follows not merely 'p' but also '~p'! Every proposition follows from them and they follow from none?! …
> But if contradiction is the class of *all propositions*, then tautology becomes what is common to any class of propositions that have nothing in common and vanishes completely. (*Notebooks* 54)

This final remark is similar to what he says in 5.143, which is quite a puzzling passage: "Contradiction is that common factor of propositions which *no* proposition has in common

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justify inferences, as in the works of Frege and Russell, have no sense, and would be superfluous." This issue will receive much more attention in chapter III.

[32] Throughout I will use the modern notation for conjunction in place of the Russellian "p.q".

with another." How can something be a common factor of propositions which have nothing in common? Wouldn't the common factor just be something had in common?

Take an elementary proposition "p". This is had in common by "p & q" and "p & r". This is what it means for two propositions ("p & q" and "p & r") to have one ("p") in common.[33] What proposition could *no* propositions have in common with another? Obviously a contradiction; the only proposition from which a contradiction follows is a contradiction. Thus while no propositions have contradictions in common, we can still talk of them as being a "common factor" of *all* propositions, since contradictions are *the only* proposition which none have in common – they lie outside all others.

Finally, the truth-functional explanation of tautology and contradiction is this: "Contradiction, one might say, vanishes outside all propositions: tautology vanishes inside them. Contradiction is the outer limit of propositions: tautology is the unsubstantial point at their center." (5.143) (And we might add that "the middle point of a circle can be conceived as its inner boundary.") (NB 54) If we take the totality of all propositions, tautology forms their inner boundary, while contradiction forms the outer. In this sense tautology and contradiction are *limiting* cases of propositions.

Wittgenstein's account of tautology and contradiction in terms of the picture theory is much clearer. We can explain it using a map of logical space, but since only a *complex* proposition can be tautologous or contradictory, the previous map of states of affairs and elementary propositions is no longer adequate. Wittgenstein provides a new spatial metaphor:

> The truth-conditions of a proposition determine the range that it leaves open to the facts.

[33] This discussion draws some on Black (1964), 246.

> (A proposition, a picture, or a model is, in the negative sense, like a solid body that restricts the freedom of movement of others, and, in the positive sense, like a space bounded by solid substance in which there is room for a body.) (4.463)

Let our new complex logical space be composed of three possible states of affairs, p, q, and r. Because of the logical holism outlined in the section 1, "the force of a proposition reaches through the whole of logical space." (3.42) Our map should look like this:

p & q & r	**~p & ~q & r**	**p & ~q & ~r**	**~p & ~q & ~r**
~p & q & r	**p & ~q & r**	**~p & q & ~r**	**p & q & ~r**

Assume the proposition "p" is true; the range left open to the facts is:

p & q & r	**~p & ~q & r**	**p & ~q & ~r**	**~p & ~q & ~r**
~p & q & r	**p & ~q & r**	**~p & q & ~r**	**p & q & ~r**

In the "positive sense" four possibilities are left open – by affirming "p" we leave these boxes white. In the "negative sense" four possibilities are closed – by negating "p" we fill in those boxes. Each proposition leaves open and closes some boxes; in so doing it determines a range left open for other facts.

> Now what happens when we try a tautology or a contradiction? Wittgenstein says,
>
> A tautology leaves open to reality the whole – the infinite whole – of logical space; a contradiction fills the whole of logical space leaving no point of it for reality. Thus neither of them can determine reality in any way. (4.463)

And this is now quite clear: "p v ~p" will leave the whole space white; "p & ~p" will make it black. Tautologies simply say nothing; contradictions *try* to say everything, and in so doing they say nothing. Thus neither of them can represent reality.

One might protest, "but surely we can distinguish 'it is raining and it isn't' from 'the table is there and it isn't.'"[34] In other words, isn't there a distinction between different tautologies and different contradictions? To see why not, let us return to the logical holism expressed at 3.42:

> A proposition can determine only one place in logical space: nevertheless the whole of logical space must already be given by it.
> (Otherwise negation, logical sum, logical product, etc.; would introduce more and more new elements – in co-ordination.)
> (The logical scaffolding surrounding a picture determines logical space. The force of a proposition reaches through the whole of logical space.)

Each state of affairs either is or isn't the case – there is no third possibility, and so at all times logical space should be seen as boxes filled with *all* elementary propositions. The map always remains the same, and every tautology and every contradiction effects the map in precisely the same way.

If we symbolize "it is raining" as "p" and "the table is there" as "q", then their respective tautologies would be "p v ~p" and "q v ~q." The objection that we can distinguish two tautologies amounts to asking why "p v ~p" has anything to do with "q." The answer is that it does have nothing to do with "q", but *neither does "q v ~q"*. Both of them, in virtue of leaving all boxes open, say nothing about any of the particular boxes. Every tautology says nothing, therefore every tautology says the same thing. (6.11)

We can define senselessness as a string of signs that possesses a form but has no content. A proposition with sense has a logical form, and by sharing that form with a situation in logical space it is able to picture it. But though the picturing cancels out in contradiction and tautology, the form of the proposition remains, and therefore tautologies and contradictions *show* that they say nothing. If we understand the symbols "p" "&" and

[34] Moore does protest; see Moore (1954), 65-69.

"~", and we understand their *form* – their possible combinations – then we *see* that "p & ~p" says nothing. In this way, tautology and contradiction "are the limiting cases – indeed the disintegration – of the combination of signs." (4.466) They are the "disintegration" of the combination signs because their internal structure turns them from symbols (which are meaningful) to pure signs (which aren't).

But tautology and contradiction can show much more than that they are tautology and contradiction. Because the propositions of logic are tautologies (6.1), the dissolution of sense obtains a central position in the *Tractatus*. Thus in addressing Wittgenstein's logic, the next two chapters of this thesis are concerned with further implications of tautology and contradiction. The purpose of the book is to draw a limit to thought and language. We see from Wittgenstein's remark that tautology and contradiction are the "*limiting* cases – indeed the disintegration – of the combination of signs" (4.466, emphasis mine) that it is in tautology and contradiction that this limit is drawn. That is, the limit is drawn in *logic*. In chapter III I will address his logic directly. Before getting there the next chapter will locate Wittgenstein's logic historically against the background of Kant and Frege.

II. A Transcendental Theory of Symbolism

In order for a proposition to be true it must first and foremost be capable of truth, and that is all that concerns logic. (NB 20)

1. Kant's logics

In some of the most beautiful prose in the history of philosophy, the Preface to the first edition of the *Critique of Pure Reason* laments the confused and dogmatic state of metaphysics, the fallen Queen of the sciences. In an attempt to return the matron to her title, Kant calls for a perspectival revolution in philosophy. He proposes that reason look to itself in order to investigate what it brings *to* experience. In this way, Kant hopes to give the a priori and necessary preconditions for empirical knowledge, and thereby determine the limits of pure reason, beyond which it inevitably falls into incoherence or contradiction. Judgments are divided into (i) those which are either a posteriori judgments or give necessary a priori conditions for them, and (ii) those a priori judgments which transcend all possible experience. By exhaustively characterizing it, (i) is delineated from (ii), and the limit of pure reason is drawn.[35] Kant's task is thus "to institute a tribunal which will assure to reason its lawful claims, and dismiss all groundless pretensions, not by despotic decrees, but in accordance with its own eternal and unalterable laws." (A xi) "This tribunal," Kant continues, "is no other than the *Critique of Pure Reason*."

In the preface to the *Tractatus,* Wittgenstein states a similar purpose for his work: to draw a limit to thought. Like Kant, his task is not to simply give a list of propositions and then divide them into those with and without sense. He argues that philosophy "(4.114)

[35] Kant does also give a sustained account of *how* and *why* we are compelled "by our very nature" to go beyond (i) in the *transcendental dialectic.*

must set limits to what cannot be thought by working outwards through what can be thought. (4.115) It will signify what cannot be said, by presenting clearly what can be said." Kant's method is to explain clearly and exhaustively what judgments *are* possible a priori. By working outward through the legitimate judgments, Kant shows that any attempt to go beyond them falls into contradiction. The method of both philosophers is to give the necessary preconditions for the legitimate side of their border (the knowable for Kant, the sayable for Wittgenstein).

The most important difference is that, to accomplish this task, Kant creates *transcendental logic* and argues for the existence of synthetic *a priori* judgments, whereas Wittgenstein insists that *his* limit-drawing must restrict itself to what Kant calls pure general logic, which is analytic. This chapter will argue that Wittgenstein is able to so restrict himself because of Frege's technical advances in logic, and Wittgenstein's inversion of Frege's notion of sense. But first we must understand the Kantian task more fully, and the role that logic plays in it.

Kant draws a distinction between pure general logic and transcendental logic. Regarding the former, Kant gives two rules "which logicians must always bear in mind." Let us deal with them in turn:

> (1) As general logic, it abstracts from all content of the knowledge of understanding and from all differences in its objects, and deals with nothing but a mere form of thought. (B 78)

One of Kant's most original and enduring contributions is his distinction between sensibility and understanding: the two springs which *together* yield knowledge. With the first we are affected by objects (given sense experience), through the second we think them (cognize it). The import of (1) is that pure general logic stands in relation only to the understanding, and is therefore constituted of "thoughts without content," that is, empty thoughts. (B 75) It is

through sensibility (either empirical *or* pure intuition) that we receive content; general logic abstracts from it. Kant writes, "General logic abstracts from all content of knowledge, that is, from all relation of knowledge to its object, and considers only the logical form in the relation of any knowledge to other knowledge; that is, it treats of the form of thought in general." (B 79) In logic reason deals only with itself; in so doing it remains empty.

Kant's second rule is:

> (2) As pure logic, it has nothing to do with empirical principles, and does not, as has sometimes been supposed, borrow anything from psychology, which therefore has no influence whatever on the canon of the understanding. Pure logic is a body of demonstrated doctrine, and everything in it must be certain entirely *a priori*. (B 78)

This rule differentiates pure general logic from transcendental logic. It also anticipates Frege's campaign against psychologism.[36] General logic is entirely empty – without object. Transcendental logic, on the other hand, *is* able to address the relationship between a judgment and its object. It can do so with regard to *pure* modes of knowledge, that is, knowledge of objects which are thought *entirely a priori*. (B 87) It is the treatment of such knowledge that constitutes roughly five sixths of the entire *Critique of Pure Reason*. But Kant does not deal with this knowledge itself; he deals with its *possibility*. (B 81) Almost everything that is immediately associated with the first *Critique*, except the pure *a priori* forms of sensibility (space and time), is transcendental logic.

To make our way back to Wittgenstein, consider Kant's reason for withholding the title "logic of truth" from general logic, but applying it to transcendental logic: "no knowledge can contradict [transcendental logic] without at once losing all content, that is, all relation to any object, and therefore all truth." (B 87) This is an indication that the *purpose* of

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[36] It also, of course, has led to the charge, (often leveled against Kant), that his *transcendental* philosophy is pschologistic. Discussion of this issue is beyond the scope of the present work; I mention only that Kant is not *forced* into psychologism regarding transcendental logic, since the requirement is not that it be psychologistic, but only that it have a relation to "empirical principles," viz. the relationship between concepts and objects.

Wittgenstein's logic (and philosophy thereof) corresponds to Kant's *transcendental*, not *general*, logic. We saw in the previous chapter that the propositions of logic serve as the *limiting case* of a proposition; on one side of the limit stand pictures whose content arises through a correspondence between names and objects, and on the other side stand nonsensical strings of signs with no such correspondence, that is, no content. This limit – on the wrong side of which one loses "all relation to any object" – is drawn in transcendental logic for Kant, but with general logic in Wittgenstein.

To sum up: Kant distinguishes between pure general logic, which is purely formal and without content, and transcendental logic, which has content, and through which Kant attempts to explain the possibility of all knowledge and draw the limit of pure reason. Wittgenstein adopts the task given by Kant to transcendental logic, except his goal is to explain the semantic possibility of truth instead of the epistemic possibility of knowledge. For this reason, he aims to accomplish the task using only the resources of a purely formal system. For Kant this is simply unintelligible: purely formal logic is capable of giving only a *negative* criterion for truth, not any positive account. **(**B 82**)** To explain why Wittgenstein is able to do this with a purely formal logic, we must look to Frege. In section 2, we will see that Frege's Conceptual Notation yields a new logic with enormous expressive power, so much, in fact, that he rejects Kant's view that logic is purely formal. For Frege, logic has content. I will argue that this logic is powerful enough to allow Wittgenstein to draw his limit using it alone. But at this point we have a Fregean logic *with content*; in sections 3 and 4 I will argue that, through a complete inversion of Frege's notion of sense, Wittgenstein is able to reinterpret Frege's logic in accord with the Kantian view that logic is *empty*, while simultaneously maintaining its expressive power.

2. Frege's laws of thought[37]

Frege's 1882 article "On the Scientific Justification of a Conceptual Notation" makes the purpose of his Conceptual Notation[38] abundantly clear. The article begins:

> Time and again, in the more abstract regions of science, the lack of a means of avoiding misunderstandings on the part of others, and also errors in one's own thought, makes itself felt. Both short-comings have their origin in the imperfection of language, for we do have to use sensible symbols to think. (Frege 1882, 83)

Frege's complaint with ordinary language is founded on two dissatisfactions. The first is *ambiguity*: words can have multiple meanings. "The most dangerous cases," Frege writes, "are those in which the meanings of a word are only slightly different, the subtle and yet not unimportant variations." (*Ibid*, 84) The paradigmatic case of such ambiguity is the lack of a distinction between *concept* and *object* words. The word "horse," for example, can be taken to mean an object (as in "the horse is in the barn") or a concept (as in "the horse is a four-legged animal"). The second problem with ordinary language, even with *mathematical* language, is that it disguises inference. (*Ibid* 85; BGS 104; BL 3-5) This is Frege's fundamental concern in all of his logical work: to achieve perspicuity in meaning and inference.

The most basic insight of Frege's Conceptual Notation is what distinguishes it from Aristotelian term logic; Frege writes, "a distinction between *subject* and *predicate* does *not occur* in my way of representing a judgment." (BGS 112) His complaint with this way of representing a judgment is that the categories of subject and predicate are logically arbitrary. Consider "At Plataea the Greeks defeated the Persians" and "At Plataea the Persians were

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[37] My reading of Frege is heavily influenced by Danielle Macbeth's *Frege's Logic* (2005).

[38] *"Begriffschrift"* refers to the 1879 book; I leave it untranslated to keep clear that "Conceptual Notation" is to refer to the notation that is *created* in *Begriffschrift*, but continuous throughout all of Frege's writings. My account of the Conceptual Notation actually follows the 1893 *Fundamental Laws of Arithmetic*, not *Begriffschrift*, where there are differences.

defeated by the Greeks." (*Loc. Cit.*) While the two sentences have different subjects and predicates, they express precisely the same thought. And most importantly, both propositions have precisely the same deductive force, or inferential role; only "that part of the content which is the *same* in both" is the conceptual content of the proposition. (BGS 113)

How, though, are we to break up a proposition like "Socrates is mortal", if not using subject and predicate? Frege's answer is one of the most important insights in the history of logic: we take "Socrates" to refer to an object, and "x is mortal" to refer to a specific type of *function*, which he calls a concept. Much more importantly, whereas Aristotelian term logic draws no formal distinction between "Socrates is mortal" and "All men are mortal," Frege takes general expressions like "all" and "some" to be functions of functions.[39] "All men are mortal" is analyzed as "for all things, if that thing is a man, then it is mortal." Instead of asserting of the (plural) subject "all men" that they are mortal, it makes an assertion about the *concepts* "x is a man" and "x is mortal." Generality is therefore a *second-level* function; the first-level functions "x is a man" and "x is mortal" take objects as arguments, but are also in turn arguments for second-level functions like "some" and "all." (BL 73-74)

In distinguishing between objects, first-level concepts, and second-level concepts, Frege brings out the essential difference in form between the propositions "Socrates is mortal" and "All men are mortal." With this distinction he gains – for the first time in the history of logic[40] – the ability to analyze multiply general propositions such as "everyone loves someone." This ability unquestionably marks the most significant expanse of the scope of logic since Aristotle. What is especially important for Frege is that he has provided

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[39] Kant, of course, is often attributed with having anticipated this insight in his critique of the ontological argument (B 625-63). Frege explictitly draws this connection to the ontological argument. (FA 65)
[40] Michael Beaney gives an excellent discussion of Frege's logical achievements in relation to his contemporaries, especially Boole, in the Introduction to *The Frege Reader* (Frege 1997, 10-14).

a means of deriving *arithmetic* rules of inference and axioms as logical theorems from the basic *logical* axioms and definitions.

Reducing arithmetic to logic as an answer to the question "what is arithmetic?" inevitably leads to a further question: what is logic?[41] Logic was often thought of as providing the "laws of thought," but whereas most natural laws are taken to be merely *descriptive*, laws of thought (especially if considered as inference rules) are taken to be *prescriptive*. Frege frequently addressed this distinction, but he often seems to contradict himself.[42]

Consider, first, the view that logical laws are descriptive laws of thought – that logic is a science of truths. Frege writes, "of course all sciences have truth as their goal, but logic is concerned with the predicate 'true' in a quite special way, namely in a way analogous to that in which physics has to do with the predicates 'heavy and 'warm' or chemistry with predicates 'acid' and 'alkaline.'" (PW 128) In thinking of "the True" as an *object* (SM 33-35; BL 7; Frege 1891, 18), Frege allows for it to be an object of scientific investigation. The laws of truth would be no different in principle from other scientific laws, except in that they are ultimately general. Along these lines, he writes in "Function and Concept" that the difference between first-level and second-level functions is "founded deep in the nature of things." (Frege 1891, 31)

We find his final expression of this view in the late essay "The Thought":

> The word 'law' is used in two senses. When we speak of moral or civil laws we mean prescriptions, which ought to be obeyed but with which actual occurances are not always in conformity. Laws of Nature are general features of what happens in nature, and occurrences in nature are always in accordance with them. It is rather in

[41] This was not the central question for Frege; he was primarily a philosopher of mathematics. But he does address this question, and as Monk explains clearly, this is the question that *Wittgenstein* took up against the backdrop of Frege's and Russell's logicism. (Monk 1990, 41-43) My discussion of Frege therefore focuses on his philosophy of logic and doesn't directly address his philosophy of mathematics.
[42] The following discussion draws on MacFarlane (2002), 36-43 and Macbeth (2005), 17-19.

> this sense that I speak of laws of truth. Here of course it is not a matter of what happens but of what is. (Frege 1918, 58)

On this view, logic gives the general laws which describe the way thought actually is. But this way of putting the matter seems to be at odds with what is perhaps Frege's most fundamental conviction: that *under no circumstance* is logic to be thought of as psychological.[43] The expression "laws of thought" could be taken to mean general descriptions of mental processes. Indeed, what could laws of thought be, if not laws of *our* thoughts?

Citing precisely this looming psychologism as a reason, sometimes Frege endorses just the opposite view: that logic is merely prescriptive, and not descriptive. In the *Basic Laws* he writes, "in one sense a law asserts what is; in the other it prescribes what ought to be. Only in the latter sense can the laws of logic be called 'laws of thought:' so far as they stipulate the way in which one ought to think." (BL 12) Frege expresses the point even more adamantly in 1897, "The word 'true' can be used to indicate [the] goal for logic, just as can 'good' for ethics and 'beautiful' for aesthetics… Like ethics, logic can be called a normative science. How must I think in order to reach the goal, truth?" (PW 128) Later in the same essay:

> We can also think of [the laws of truth] as prescriptions for making judgments; we must comply with them in our judgments if we are not to fail of truth. So if we call them laws of thought or, better, laws of judgment, we must not forget we are concerned here with laws which, like the principles of morals or the laws of the state, prescribe how we are to act, and do not, like the laws of nature, define the actual course of events… I therefore think it better to avoid the expression 'laws of thought' altogether in logic, because it always misleads us into thinking of laws of thought as laws of nature. (PW 145)[44]

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[43] There is hardly a completed piece of writing by Frege that does not contain a sustained discussion of this point. It is taken as one of the fundamental principles in *The Foundations of Arithmetic* (FA x), and he characterizes his whole enterprise in the preface to *The Basic Laws of Arithmetic* as an attempt to "contribute to a renewal of logic" by "overthrowing psychological logic." (BL 25)

[44] Another expression of the same view is found in PW 4-5.

These remarks stand in direct opposition to the statement above from *The Thought*, and also to his view that the True and the False are objects for scientific investigation.

On this prescriptive view, Frege is in complete agreement with Kant.[45] Kant's logical principle was that "as pure logic, it has nothing to do with empirical principles, and does not, as has sometimes been supposed, borrow anything from psychology, which therefore has no influence whatever on the canon of the understanding." (B 78) In elucidating this statement, Kant relates pure general logic to pure ethics, "which contains only the necessary moral laws of a free will in general." (*Loc. Cit.*)[46] For Kant, logic is a body of rules, not truths. (B 82-86) *For this reason*, according to Kant, logic must be empty – it is only in virtue of being wholly abstracted from all connection to sensibility that logic is able to prescribe rules for all possible thought.

But what about Frege's earlier statements that logic *is* descriptive? Continuing the long passage quoted on the previous page, Frege achieves a synthesis of the two contrasting views: "we could, with equal justice, think of the laws of geometry and the laws of physics as laws of thought or judgment, namely as prescriptions to which our judgments must conform in a different domain if they are to remain in agreement with truth." (PW 145-146) Laws of geometry and physics, however, are clearly also descriptive. And thus Frege's mature view is that the ambiguity of the word "law" corresponds to an ambiguity *in laws themselves*:

> Any law asserting what is, can be conceived as prescribing that one ought to think in conformity with it, and is thus in that sense a law of thought. This holds for laws of geometry and physics no less than for laws of logic. The latter have a special title to

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[45] In the *Vienna Logic* Kant gives Frege's argument almost verbatim, "We can divide the laws of our understanding in the following way: 1. Rules for how we think. 2. Rules for how we ought to think. Sometimes we think completely wrongheadedly. This use can never agree with the rules. This is the misuse of the understanding and is excluded here… Some logicians presuppose psychology in their logic. Since this is an empirical science, there would arise from this a science of how we think under various hindrances, not of how we ought to think. There would be nothing but contingent and natural laws. But that is not what we are asking about." (Kant 1992, 252) A similar argument appears in less detail in the *Jäsche Logic* (*Ibid*, 529)

[46] Kant addresses this relationship much more thoroughly in *The Fundamental Principles of the Metaphysics of Morals* (1885), 9-15.

> the name 'laws of thought' only if we mean to assert that they are the most general laws, which prescribe universally the way in which one ought to think if one is to think at all. (BL 12)

All descriptive laws are simultaneously prescriptive laws of thought; by describing what actually is they prescribe that we ought to think in accordance with them. Logical laws have a special title to the status "laws of thought" because of their *generality*; whereas physical laws describe the physical universe, and thus usher in prescriptions regarding thought only about it, logical laws are general laws about everything whatsoever, and thus they usher in prescriptions regarding any and all thought.[47]

From this hybrid view of laws, and from the fact that Frege calls logical truths analytic, it follows that Frege's analyticity is distinct from Kant's. When defining analyticity in the *Foundations*, Frege claims to only explicate Kant's own definition.[48] But much later in the text he acknowledges the differences between their respective definitions, calling Kant's "too narrow." (FA 99-100) In this later passage, Frege is discussing "the more fruitful type of definition" in mathematics, which yields inferences that "cannot be inspected in advance." He argues that

> The conclusions we draw from it extend our knowledge, and ought therefore, on Kant's view, to be regarded as synthetic; and yet they can be proved by purely logical means, and are thus analytic. The truth is that they are contained in the definitions, but as plants are contained in their seeds, not as beams are contained in a house." (FA 101)

Interestingly enough, there is a section in the first *Critique* where Kant also addresses the fruitfulness of mathematical definitions. He, like Frege, takes this fruitfulness as

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[47] See also FA 20-21 and MacFarlane (2002), 36-37.

[48] He writes in a footnote to his definition of "analytic," "I do not, of course, mean to assign a new sense to these terms, but only to state accurately what earlier writers, Kant in particular, have meant by them." (FA 3)

characteristic of mathematics, but for precisely this reason he calls them synthetic, in contrast to philosophical "expositions" of a concept, which are analytic. (B 727-732)

It is on this point that Frege differs strikingly from both Kant and Wittgenstein. While all three of them describe logic as "analytic," Frege's understanding of this term differs from the other two. According to Wittgenstein, all that can be inferred from a proposition is already contained in it.[49] Kant's notion of analyticity, likewise, is characterized by the idea of explicating what was already in a concept. Thus inference (for Wittgenstein) and explication (for Kant) are little more than psychological aids. They help us see what was already there. Macbeth addresses this issue, and writes that for Frege "the conclusion is contained in the premises not *implicitly*, as Wittgenstein thinks, but rather *potentially*. Actualizing that potential requires an inference." (Macbeth 2002, 213) One might say that the conclusion is, for Frege, contained in the premises *together with* the inference.

I claimed earlier that, with Frege's new logic, Wittgenstein would be able to carry through something analogous to Kant's program of transcendental philosophy without appealing to a separate transcendental logic. It still isn't clear what about Frege's logic allows this. But if we look back to Kant's distinction between general and transcendental logic, we find that the essential difference between them is the way in which they deal with *truth*. Regarding the former, Kant writes,

> [General] logic, in so far as it expounds the universal and necessary rules of the understanding, must in these rules furnish criteria of truth. Whatever contradicts these rules is false… These criteria, however, concern only the form of truth, that is, of thought in general; and in so far they are quite correct, but are not by themselves sufficient. For although our knowledge may be in complete accordance with logical demands, that is, may not contradict itself, it is still possible that it may be in contradiction with its object. (B 84)

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[49] I focus the discussion of Wittgenstein's analyticity on inference for reasons that will become clear in chapter III section 1; in short, Wittgenstein's "method of inference" is to combine premises and conclusion so as to obtain an analytic statement (a tautology).

Thus Kant insists that general logic is incapable of giving a criterion of truth that is both necessary and sufficient. But with *transcendental* logic the story is different:

> That part of transcendental logic which deals with the elements of pure knowledge yielded by understanding, and the principles without which no object can be thought, is the transcendental analytic. It is a logic of truth. *For no knowledge can contradict it without at once losing all content, that is, all relation to any object, and therefore all truth.* (B 87; emphasis mine)

Because Kant's transcendental logic *does* address the thinking of an object (of content), it can be thought of as a science of truth. Traditional Aristotelian term logic (what Kant meant by "general logic") treats only of subject and predicate, and thus Kant is forced to look outside of general logic to explain the content of a judgment.

As a science of truth, we saw, is precisely how Frege characterizes logic – logic takes truth *as its object of study*. In giving a functional analysis of the relationship between concept and object, Frege opened up the possibility of treating the inner structure of a judgment formally, and showed how concept and object unite to yield a truth-value. Instead of giving only rules to which judgments must conform, Frege introductions truth-conditions; this is precisely what Kant found wanting in pure general logic.

There is still the question of whether Kant would accept Frege's Conceptual Notation as logic, given that it has content. Indeed, Frege's advance in logic, the treatment of concept and object, is precisely what Kant claimed that logic, *as logic*, can't do. Frege's logic does actually describe something and *thereby* gives the laws of thought, but a Kantian might ask: if it doesn't describe our psychological thinking of a thought, what does it describe? To answer this question, Frege draws his famous distinction between sense and meaning.[50]

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[50] I translate Frege's "Bedeutung" as "meaning." It is usually translated as "reference," but "nominatum" and "meaning" are also common.

3. Frege's sense

Frege's classic 1892 essay "On Sense and Meaning" begins with a puzzle about identity: how is it that a sentence like "the morning star is the evening star" can be informative? If the morning star really is identical with the evening star, then the sentence seems to assert nothing more than that an object is identical with itself – an *a priori* truth. But the discovery that both "the morning star" and "the evening star" correspond to the same object – the planet Venus – was an important *a posteriori* discovery. Frege bridges the epistemic gulf between trivial and informative identity statements with the notion of sense. "The morning star" indicates a particular way of looking at the object – where it appears at a particular time in the sky – likewise with "the evening star". This "way of looking," called by Frege "the mode of presentation of that which is designated," (SM 26) is the sense of a referring expression. Thus, what we are told by "the morning star is the evening star" is that the same object is presented by the two different senses. A "proper name," then, "*expresses* its sense" and "*stands for* or *designates* its meaning." (SM 31)

The distinction isn't limited to proper names, at least not to what *we* call proper names. Frege calls any linguistic expression which means an object a proper name (SM 27), and when coupled with his functional account of concepts, this yields a strange result. The sense of a *proposition* is a thought, which is to be understood not as "the subjective performance of thinking but its objective content, which is capable of being the common property of several thinkers." (SM 33n) Just as the sense of an expression is a mode of presentation of its meaning, the sense of a proposition is a mode of presentation of the proposition's meaning. This is where the translation of "Bedeutung" as "reference" becomes problematic, for what could a *proposition* possibly refer to? A proposition means a truth-value, says Frege, which he defines as the "circumstance that it [the thought] is true or

false." (SM 34) A truth value is an *object*, one of two: the True or the False. And just as there are many senses with which we can mean an object, there are many thoughts with which we can mean the True or the False.

And finally, the sense/meaning distinction is extended beyond proper names (including propositions) to *concepts*. Concepts, Frege writes, "are predicative." (Frege 1892, 193) They are incomplete – only when given an object do they become whole. But whereas, in the *Begriffschrift,* this is taken to mean that concept words are not referring expressions (BGS 128), in later writings Frege argues that concept words *do* denote something, namely concepts.[51] As such, concept words must also possess a sense. Since Frege's Conceptual Notation is intended to allow the expression of general laws regarding the relationship between concepts and objects, he must be able to talk *about* concepts. And, furthermore, because the sense of a proposition is made up of the *senses* of its parts (SM 33), it follows that all parts of the proposition must have a sense.

Thoughts – the senses of propositions – exist in an objective non-physical and non-mental realm. (SM 30; Frege 1918, 69) They are composed of unsaturated senses of concepts and saturated senses of objects. When the sense of the thought is so constituted as to mean the True, the proposition is true. It is false otherwise. The parts of the proposition fit together to give truth conditions, which in turn are the meaning of the sentence. Thus it is commonplace to read Frege as the grandfather of the contemporary notion of the more compositional theory of meaning.

[51] This is the primary point of Frege's "Comments on Sinn and Bedeutung" (in Frege 1997, 172-180) and an 1891 letter to Husserl (in Frege 1980, 61-64) See also FA 63, BL 32, and Frege 1892a, 317-318.

But perhaps the fact that nearly everyone who so reads him sees Frege as failing miserably in his task shows that they're on the wrong track.[52] The fundamental problem with the traditional reading of Frege comes out in a remark of Dummett's: "Frege's model of language is both rigid and static, and therefore fails to be a naturalistic portrait of ordinary language." (Dummett 1981, 626) Frege was well aware of the rigidity of his theory, and for precisely that reason he was well aware that it is not a theory of natural language. Consider the following two passages:

> Ordinary language can be compared to the hand, which despite its adaptability to the most diverse tasks is still inadequate. We build for ourselves artificial hands, tools for particular purposes, which work with more accuracy than the hand can provide. And how is this accuracy possible? Through the very stiffness and inflexibility of parts the lack of which makes the hand so dextrous. Word-language is inadequate in a similar way. We need a system of symbols from which every ambiguity is banned, which has a strict logical form from which the content cannot escape. (Frege 1882, 86)

> I believe I can make the relation of my 'Conceptual Notation' to ordinary language clearest if I compare it to the relation of the microscope to the eye. The latter, because of the range of its applicability and because of the ease with which it can adapt itself to the most varied circumstances, has a great superiority over the microscope. Of course, viewed as an optical instrument it reveals many imperfections… But as soon as scientific purposes place strong requirements upon sharpness of resolution, the eye proves to be inadequate. On the other hand, the microscope is perfectly suited for just such purposes; but, for this very reason, is useless for all others. (BGS 105)

These are not the remarks of a natural language theorist.[53] They are the remarks of a logician who is interested in creating a Conceptual Notation which *isolates* and clearly displays all inferential steps, which makes clear how function and argument yield truth-values, and which explains judgment as the step from sense to meaning. In short, they are the remarks

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[52] See Dummett (1981), 584-627 for the standard expression of this reading; see Evans (1982) and Davidson (1967) for compositional language theorists who see Frege as their forerunner, but criticize his attempt. Macbeth is very critical of this reading of Frege: see especially Macbeth (2006), 131-155.

[53] See also Frege's letter to Husserl from October 30th, 1906: "It cannot be the task of logic to investigate language and determine what is contained in a linguistic expression. Someone who wants to learn logic from language is like an adult who wants to learn how to think from a child… The main task of the logician is to free himself from language and to simplify it." (Frege 1980, 67-68)

of a *scientist* who is concerned with investigation of platonic laws of thought through a science of the True and the False.

I will conclude, then, with Frege's *logical* presentation of the sense/meaning distinction. Consider an arithmetical function, such as "x + 2". It takes a number as argument, and yields a number as value, e.g. argument 2 yields value 4. In both *Basic Laws* and "Function and Concept" Frege mentions that the field of possible arguments and values for functions had recently been extended by the admission of complex numbers. (BL 35; Frege 1891, 28) While his primary interest is arithmetic, his concern with it is to show its ultimate generality – its close connection with the absolutely general laws of thought. (FA 21) Thus he continues this process of widening the domain and range of a function, ultimately allowing any object to serve as the value of a function. (BL 35-36; Frege 1891, 13) Functions map objects of any kind onto truth-values.[54]

One thing stressed in nearly all of Frege's writings – both early and late – is that a proposition can be given various analyses into function and argument. Thus "2(3 + 1) = 2(3) + 2" can be turned into "n(3 + 1) = n(3) + 2," which maps 2 onto the True, and everything else onto the False. But we can also turn it into "2(3 + n) = 2(3) + 2," which means the True with argument 1, and the False with all others. A point stressed in the *Basic Laws* is that *only relative to such an analysis* can we make inferences. Macbeth explains as follows:

> To infer, for instance, that Romeo admires Juliet on the grounds that Romeo loves Juliet and that anyone who loves Juliet admires her requires analyzing 'Romeo loves Juliet' into function and argument in a way that is different from that required in the inference 'Romeo loves Juliet; anyone who loves someone loves himself or herself; therefore, Romeo loves himself. (Macbeth 2005, 137; see also 72-73, 76, 131-143)

[54] This is precisely what leads Frege into the famous "Julius Caesar" problem. See FA 68, 78.

Just as with the mathematical proposition given above, "Romeo admires Juliet" could be seen as "Lxj," "Lrx," "Lxy," "Φrj," and so on. Only relative to such an analysis do we obtain truth-conditions, independent of such an analysis the proposition simply "shows how things stand if it is true. In order to recover truth-conditions from it, we must analyze it into function and argument." (*Ibid*, 44) What is *independent* of such an analysis is the sense of the proposition – the thought – which simply displays Romeo, Juliet, and the relation of loving in a *higher order* relation. A proposition of the Conceptual Notation displays the thought in such a way that it can be variously analyzed, in order that it may be used variously for inferences.

There are thus *two* central elements to propositions of Frege's Conceptual Notation; first, the "conceptual content" of the proposition (the thought, its sense) is displayed. But *equally important* is that we "move from a thought to its truth-value," more precisely, from sense to meaning. This dual-nature is reflected in the Notation itself, specifically in the fact that Frege requires both the *content-stroke* (or the "horizontal") and the *judgment-stroke*.[55] With regard to Frege's *pre*-Sense/meaning writings (e.g. *Begriffschrift*), Wittgenstein's criticism of the judgment stroke (4.442) is entirely justified – for whether or not one believes that the sentence is true is irrelevant – the proposition simply displays truth-conditions. (BGS 114-124)[56] But once Frege distinguishes the thought from its truth-value, it becomes necessary to analyze the proposition into function and argument in order to move from sense to meaning and make inferences, that is, it becomes necessary to *make a judgment*. The sense of a proposition is its entire inferential content; relative to an analysis we can reach *truth*.

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[55] See Macbeth 2002, 206-220.

[56] In this way Wittgenstein's criticism also applies to Russell's use of it, throughout all of his pre-Wittgenstein logical work.

We can see how Frege's introduction of the *logical* notion of sense explains why Frege saw logic as giving substantial laws of truth. The *sense* of a logical law, such as the Basic Law IIa: "——[(x)Fx] → Fa" (BL 71),[57] simply *displays* a second-order logical relation between concepts and objects. Once prefaced with the judgment stroke ("├—— [(x)Fx] → Fa") the law moves from sense to meaning. It moves from displaying logical relations to *making assertions about them*. This law is a second level function with first level functions as argument, and asserts of them that "what holds for all objects, holds also for any." (*Loc. Cit.*) It gives us an ultimately general account of how functions and arguments work together to yield truth. On the reading sketched here, Frege's project is to give just such logical laws in order to give scientific knowledge of truth.

4. Logic's Place in the *Tractatus*

Let's recapitulate. In Kant we saw:

(1) *general logic consists of judgments with no content, and*

(2) *transcendental logic gives necessary preconditions for knowledge.*

Because of the power of his new truth-functional logic, Frege held that

(3) *logic gives general truths about platonic thoughts (senses of propositions), and*

(4) *logic is therefore both descriptive and normative.*

In this section I will argue that Wittgenstein fundamentally inverts (3) through his distinct notion of sense, and because of this inversion he holds the following theses:

(1') *logic consists of propositions with no content,*

(2') *logic gives necessary preconditions for truth,*

(4') *logic is neither descriptive nor normative.*

[57] The line at the beginning is not negation, but Frege's "horizontal," which indicates that what follows it has content, viz. is a thought.

The connection between the three theses is clear: because logic is empty it is not descriptive; because logic gives necessary preconditions for truth it is not normative.

There are some barriers to overcome. First, holding both (1') and (2') seems paradoxical. One of Kant's most fundamental points was that (2') could only be achieved by *synthetic* a priori judgments; how could an analytic proposition be transcendental? Second, (4') seems paradoxical in itself. If logic isn't descriptive *or* normative, what is it? Wittgenstein's answer comes as a critique of Frege.

Frege holds that the meaning of a proposition is a truth-value, and that the sense of a proposition is the mode of presentation of that truth-value (a thought). While Frege's thoughts are platonic entities in a non-physical/non-mental realm, they are nonetheless closely related to Wittgenstein's notion of a possible fact. This issue appears to be a problem for Frege. A thought is constructed out of the senses of the constituent parts of its proposition, which are held to stand in an internal and necessary relationship to one-another: senses of names saturate senses of concept-words. But names and concept-words *also* have meanings: an actual object and an actual concept. Thus whereas the sense of a proposition is composed out of the senses of the parts, the meaning of the proposition is not: it is simply the object the True or the False. The question is: what has happened to the meanings of the parts? The only solution would be to say that they (together) are something like a fact – a proposition refers to the True if the meanings of the parts stand in relation to one another as the proposition says they do. If not it means the False. On this view, the meaning of a false proposition is precisely the *opposite* of the meaning of a true proposition.

Wittgenstein writes in *Notes on Logic*, "in my theory p has the same meaning as not-p but opposite sense. The meaning is the fact." (NL 95) In the updated vocabulary of the *Tractatus*: "The propositions 'p' and '~p' have opposite sense, but there corresponds to them

one and the same reality." (4.0621) A neutral way to define "sense" and "meaning" for both Frege and Wittgenstein is to say that the meaning of an expression is what is *in the world* that relates to it; the sense of an expression is the method of presenting the meaning. The sense of Frege's proposition is the mode of presentation of the truth-value, which is the presentation of a fact. The sense of Wittgenstein's propositions is the mode of presentation of the fact, which is the presentation of it *as being* true or false.

We have to be careful not to conflate two separate distinctions: (5) positive and negative propositions and (6) true and false propositions. It is Wittgenstein's treatment of the relationship between these two distinctions that leads to his sharpest criticism of Frege. Frege is not sensitive to (5); he does not allow for a negative assertion of a fact. Rather, in asserting "~p" one *affirms* "that the content of [p] does not occur." (BGS 120) Thus "p" and "~p" have opposite meanings, and both are true just in case their *distinct* thoughts present the True.[58]

Wittgenstein finds this position untenable, because if 'p' and '~p' determine *different* facts, then it isn't immediately clear what the connection between them is. He writes, "the negating proposition determines a logical place with the help of the logical place of the negated proposition. For it describes it as lying outside the latter's logical space." (4.0641) Consider the logical place determined (range left open to the facts) by "p":

p & q & r	**~p & ~q & r**	**p & ~q & ~r**	**~p & ~q & ~r**
~p & q & r	**p & ~q & r**	**~p & q & ~r**	**p & q & ~r**

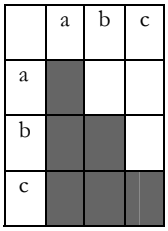
The logical place determined by "~p" is different from that determined by "p", but it is essentially connected to it in that it is *precisely* the opposite logical place:

[58] Anscombe's treatment of this issue is remarkably clear; see (1971), 51-78.

p & q & r	**~p & ~q & r**	**p & ~q & ~r**	**~p & ~q & ~r**
~p & q & r	**p & ~q & r**	**~p & q & ~r**	**p & q & ~r**

In this way the two senses are fundamentally opposed to one another; if the sense of a proposition is thought of as an arrow (3.144), then 'p' and '~p' are like arrows pointing in opposite directions from the same point. (4.461)

Whereas the senses of "p" and "~p" are opposed to each-other, they share the same meaning. This is easily brought out with the *object*-map from chapter I, this time with just objects *a, b,* and *c*:[59]



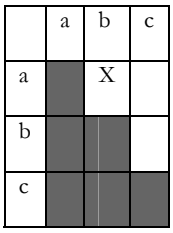
Let the proposition "ab" be indicated by "p", "ac" by "q" and "bc" by "r". Placing an "X" in a box indicates that the state of affairs exists, "p" is true if there is an X in the *ab* box. Otherwise it is false. Let us assume that "p" is true and "q" is false; the range left open to the facts looks like this:

p & q & r	**~p & ~q & r**	**p & ~q & ~r**	**~p & ~q & ~r**
~p & q & r	**p & ~q & r**	**~p & q & ~r**	**p & q & ~r**

This map serves its purpose: there is still the possibility of "r" being either true or false, and this is exactly what "p & ~q" should do. But if we move to the object map a problem crops

[59] For simplicity I shade most of the boxes (ruling them out as possible combinations). There are only three possible states of affairs in this world.

up, and it corresponds exactly to the collapse of Wittgenstein's paper analogy given for truth in 4.063.[60]



I did not mention whether "r" was true or false, but the object map displays it as false, just as it does "q". If the proposition "r" pictures *ac*, then there is no way to simply indicate it on this map without indicating it *as* true or *as* false; a proposition can only picture a situation (have a meaning) if it does so with a sense, with direction. It must say that the situation either exists or does not exist.

This is Wittgenstein's theory of truth and sense. What is important to see is that the object map is a language under Wittgenstein's theory. It is essential that I have set up some correlation between the parts of the map and objects in our imagined world, and also that I have given "rules of projection" for how the map is to determine reality. My rules were to correlate "a" with *a,* etc., and stipulate that if "a" and "b" share a box in their respective paths marked with an "X", then the state of affairs *ab* exists, if they share a box not marked with an "X" then *ab* does not exist. It is only in fixing which situation is pictured, how to picture that situation as existing, and how to picture that situation as not existing, that one gets a proposition.

Wittgenstein's critique of Frege's theory of truth appears exactly where the map broke down on the previous page: I had stipulated that "q" was false and said nothing about

[60] This collapse is not a critique of Wittgenstein; he mentions it himself to illustrate the point.

"r", but in the map both "q" and "r" were presented as false. Wittgenstein writes, "The verb of a proposition is not 'is true' or 'is false', as Frege thought: rather, that which 'is true' must already contain the verb." (4.063) For Wittgenstein's theory – as captured by the map – there is no way to have a proposition without determining when it is true and when it is false (there is either an "X" or there isn't – there is no third possibility). In giving different meanings to "p" and "~p" Frege leaves this undetermined, because there is no essential connection between the two facts. There must be something common between the two propositions, but in Frege's account the only thing common is *symbolic* – both the thoughts and meanings are distinct.

The question now is: how does this critique of Frege allow Wittgenstein to hold theses (1'), (2') and (4')?

(1') *logic consists of propositions with no content,*

(2') *logic gives necessary preconditions for truth,*

(4') *logic is neither descriptive nor normative.*

First, it follows from Wittgenstein's notion of sense that "no picture can be true a priori." (2.225; 5.634) There is a single type of exceptional proposition:

> 3.04 If a thought were correct a priori, it would be a thought whose possibility ensured its truth.
> 3.05 A priori knowledge that a thought was true would be possible only if its truth were recognizable from the thought itself (without anything to compare it with).

Tautologies are just such propositions, (4.461-4.462; 6.113; 6.127) and the propositions of logic are tautologies. (6.1) They are the disintegration of combinations of signs (4.466), and as such they are thoughts which guarantee their own truth. Logic consists of all and only propositions which are not pictures – the propositions with no content. This stands in stark contrast to Frege's view, according to which the laws of logic describe a platonic realm.

As regards thesis (2'), consider the fact that the object map can be thought of as a *language*, just as Wittgenstein argues that a truth table can be a propositional sign. (4.442) The map consists of facts, or parts which stand to one another in determinate ways. Furthermore, we could set up a simple convention to make the "range-left-open-to-the-facts" map *also* serve as a language; we stipulate that "p" is short-hand for "ab", "q" for "ac" and "r" for "bc". Then both maps have the form required to serve as a picture; "p" is true if there is an "X" in the "ab" box. The situation described here is similar to the one described in 4.014: "A gramophone record, the musical idea, the written, notes, the sound-waves, all stand to one another in the same internal relation of depicting that holds between language and the world." All of the variant languages for describing the simple imagined world share internal relations with one another, and they all share that same internal relation with the imagined world itself. Logic gives the conditions for the possibility of truth by displaying these internal and formal relations.

Frege's holds that natural language is ambiguous; it is never quite clear which thought is being expressed. In order to say something *true* one must express a thought without ambiguity; to display such thoughts Frege constructs his Conceptual Notation. He doesn't construct it in order to explain natural language, which works fine for its own purposes, but rather to give us a means of scientifically investigating the logic of these pure thoughts. For Wittgenstein, the relationship between logic and language is different:

> Man possesses the ability to construct languages capable of expressing every sense, without having any idea how each word has meaning or what its meaning is – just as people speak without knowing how the individual sounds are produced.
> Everyday language is part of the human organism and is no less complicated than it.
> It is not humanly possible to gather immediately from it what the logic of language is.
> Language disguises thought. So much so, that from the outward form of the clothing it is impossible to infer the form of the thought beneath it, because the outward form of the clothing is not designed to reveal the form of the body, but for entirely different purposes.

> The tacit conventions on which the understanding of everyday language depends are enormously complicated. (4.002)

Wittgenstein's view is not that a more explicit logical notation (such as his truth-tables, or my object map) is a "better picture" of the world; the only difference is that it is easier to gather what its logical form is. (6.122) Everyday language must possess logical form, even if it is "disguised." If a proposition *is* a proposition, then it determines a place in logical space. Of course we might not understand all of the conventions that determine this space, and thus we might not fully understand the proposition. It is the task of philosophy to give a critique of language in this sense (4.0031), to give a logical analysis of propositions, and thus make clear the logical form that allows them to *be* propositions. Language is not ambiguous; *we* have an ambiguous understanding of our language. The task of logical analysis is to help us see the determinate clarity that was already in the proposition to begin with.

In the *Notebooks,* Wittgenstein explains this point using a metaphor of *depth*. "Words are probes; some reach very deep; some only to a little depth," (NB 39) and "(The older a word, the deeper it reaches.)" (NB 40) As one of our complex words gets older and older it becomes integrated into our everyday life in more and more ways. In this way, the conventions which govern its contribution to the senses of propositions become more and more complex, to the point where in everyday language we don't even know exactly what the conventions are. Another striking *Notebooks* metaphor continues the theme: "words are like the film on deep water." (NB 52) The surface of our language is just fine for a surface; the logic of our language lies hidden underneath it, supporting it and keeping it afloat.

The logician's job is to create a perfect logical notation where the conventions are all apparent; the philosopher's job is to show, through analysis, how everyday language connects with such a perfect notation, and thereby to demonstrate that philosophical propositions are nonsensical, because they do not end up picturing states of affairs. (6.53)

This leads to Wittgenstein's transcendental theory of symbolism. To show how language is actually able to work we need to give the logical form which makes it possible. A perfectly perspicuous logical notation would do exactly that, and it is his intention in the *Tractatus* to describe such a notation. (6.122) Such a notation would display logical form clearly, and therefore display the logical preconditions necessary for the possibility of truth. The task, one should see, is a Kantian one.

I have explained why Wittgenstein holds (1') and (2'); logic is empty because it consists of tautologies which stand in no picturing relation to the world, and it is transcendental precisely because it gives the logical form which allows propositions to be pictures. From these two theses (4') follows. The first element of (4') should be immediately clear. If logic doesn't describe anything, then it isn't descriptive. But the second element – the lack of any prescriptive force – is less clear. First we must understand what is meant by "prescriptive."[61]

Recall Frege's hybrid view of laws: they are both descriptive and prescriptive. Laws are descriptive in that they give general truths about reality; they are prescriptive in that we ought to think in accordance *with* them. That is, insofar as we are trying to think truths in any particular domain, we ought to think thoughts which are consistent with the general laws which describe that domain. It should be immediately clear why Wittgenstein doesn't hold *this* view: since logic isn't descriptive, its descriptive content can't be simultaneously prescriptive. But while discussing this view of Frege's, we saw that on the prescriptive side of the hybrid view he was in agreement with Kant. Thus my statement that the

[61] Another position according to which logic is prescriptive is Russell's: everyday language is ambiguous, and in order to be clearer it ought to be more logical. The position outlined by Frege was *similar*, but one thing I've tried to stress in this chapter is that Frege differs from Russell on this issue. Wittgenstein's relation to this position of Russell's is the subject matter of chapter III section 1; at issue here is the sense in which Frege sees logic as normative.

transcendental status of logic prevents it from having any normative force might seem confusing, since I've taken "transcendental" in Kant's sense, but Kant sees logic as normative.

We must remember that Kant's distinction between general and transcendental logic no longer holds good for Wittgenstein. Wittgenstein agrees with Kant's philosophy of pure general logic, but as we saw in his theory of symbolism, he grafts the essence of Kant's transcendental philosophy onto general logic. That is, Wittgenstein holds both (1') and (2'). While Kant's general logic is *not* transcendental, it is clear that his transcendental logic cannot have any normative force. Kant sees his transcendental logic as giving the conditions according to which we structure the world. Kant holds that without bringing the intuitions given to us under categories we would have no coherent world at all, but only a series of random unintelligible intuitions. (B 143) This is definitely not to say that we *ought* to bring our judgments under the categories. Kant's argument takes a transcendental form: (1) we do have coherent experience, (2) in order to have coherent experience would have to structure our intuitions according to the categories, therefore (3) we structure our intuitions according to the categories. If we *don't* bring our intuitions under the categories we simply don't have experience, and we certainly don't have knowledge. We do so of necessity, not by choice. The same is true of Wittgenstein's theory of sense. We can not choose to give our pictures logical form. If they don't have logical form, then they aren't pictures. Logical form gives the conditions necessary for the possibility of a proposition; without them we don't have an illogical proposition, we just don't have a proposition. (5.4733) In the next chapter the implications of this point for both Wittgenstein's philosophical and technical logic will be addressed.

III. Logic

"It is clear that whatever we can say in advance about the form of all propositions, we must be able to say all at once." (5.47)

1. Logic must take care of itself

The aphorism "Logic must take of itself" is the oldest surviving remark from Wittgenstein's notebooks, and occurs repeatedly throughout them (as well as at 5.473 in the *Tractatus*). Of it, David Pears writes, "In other words, logic is a self-contained system which can be validated only from within. Its formulae, therefore, must be completely different from factual sentences, which have to measure up to something outside themselves." (Pears 1987, 21) Stated in such generality, Pears' words are correct, but he goes on to interpret "can be validated only from within" as meaning little more than the banal point that a formal system cannot prove its own axioms.[62] There is more to Wittgenstein's point than this, but it does approximate the issue which concerns him. He writes in the 1913 *Notes on Logic,* "Deductions only proceed according to the laws of deduction but these laws cannot justify the deduction." (NL 93) And in the *Tractatus:* "clearly the laws of logic cannot in their turn be subject to laws of logic." (6.123) The question is not what justifies some particular logical theorem – that was already explained via truth-tables – but rather what justifies logic as a whole. Wittgenstein's answer, as should be apparent from the previous chapter, comes in logic's relationship to language.

[62] And as I will argue below, interpreting Wittgenstein along these lines is forbidden by the simple fact that he does not conceive of logic as being an axiomatic formal system. (See 6.127)

Russell misunderstood Wittgenstein's answer, and his confusion proves illuminating. In his introduction to the book (with which Wittgenstein was thoroughly dissatisfied),[63] Russell writes,

> Wittgenstein is concerned with the conditions for *accurate* Symbolism, i.e. for Symbolism in which a sentence 'means' something quite definite. In practice, language is always more or less vague, so that what we assert is never quite precise. Thus, logic has … to deal with … the conditions for sense rather than nonsense in combinations of symbols… A logically perfect language has rules of syntax which prevent nonsense… Mr. Wittgenstein is concerned with the conditions for a logically perfect language – not that any language is logically perfect, or that we believe ourselves capable, here and now, of constructing a logically perfect language, but that the whole function of language is to have meaning, and it only fulfils this function in proportion as it approaches to the ideal language which we postulate. (Russell 1921, x)

I quote at length not only because this passage is obviously wrong as an interpretation of Wittgenstein,[64] but because it clearly presents the difference between Wittgenstein and Russell. For Russell, "the meanings of common words are vague, fluctuating and ambiguous, like the shadow thrown by a flickering street-lamp on a windy night." (Russell 1914, 128) Russell believes that with a clearly constructed logical system we can *improve language* by making it more precise.[65] Russell subsequently reads this view into the *Tractatus*.

In contrast, for Wittgenstein we do not take care of language by offering logical prescriptions. A prescription that one must follow *of necessity* isn't a prescription at all. (Imagine being told "you really ought to be numerically identical with yourself.") The point is made explicit in the *Tractatus* at 6.124: "logic is not a field in which *we* express what we wish with the help of signs, but rather one in which the nature of the absolutely necessary

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[63] In letters to Russell he wrote, "There's so much of [your introduction] that I'm not quite in agreement with – both where you're critical of me and also where you're simply trying to elucidate my point of view" (WL 86) and "You see, when I actually saw the German translation of the Introduction, I couldn't bring myself to let it be printed with my work. All the refinement of your English style was, obviously, lost in the translation and what remained was superficiality and misunderstanding." (WL 87-88)

[64] 5.5563 states, "In fact, all the propositions of our everyday language, just as they stand, are in perfect logical order." See also 4.002 and NB 69-71.

[65] See PLA 37-38 for a statement of this view in relation to Russell's atomistic analysis.

signs speaks for itself."[66] It is this *transcendental* aspect of logic – not its "ideal" status – which justifies it. The first comment in the *Tractatus* on "logic must take care of itself" runs, "Self-evidence, which Russell talked about so much, can become dispensable in logic, only because language itself prevents any logical mistake. What makes logic a priori is the *impossibility* of illogical thought." (5.4731)

The point follows from Wittgenstein's picture theory of meaning. Russell's interpretation requires that a sentence "accurately," "precisely" or "unambiguously" picture a possible situation. But we can only ask whether a proposition unambiguously pictures a possible situation once we already know which situation is *supposed* to be pictured. What could this "supposed picturing" relation consist in, if not *actually* being pictured? We can only assess the logical form of a proposition if it does have that form. The same thing is true of actual pictures; if a picture is drawn so chaotically that we have no idea what it is supposed to picture then we can't assess its accuracy. The question "is that an accurate picture" only makes sense if it can be continued: "is that an accurate picture *of* …" But also, the difference between Wittgenstein's picture theory and pictures themselves is that the subtle distinctions between a good and a bad drawing or painting are not present in Wittgenstein's view of language: a proposition either pictures a possible state of affairs or it doesn't, and that is the end of the matter.

When one abuses logic one doesn't start speaking imprecisely; one *ceases to speak*. Thus Wittgenstein writes, "Frege says that any legitimately constructed proposition must have a sense. And I say that any possible proposition is legitimately constructed…" (5.4733)

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[66] The clearest example of this point in the *Tractatus* is Wittgenstein's treatement of identity. Whereas in Russell's symbolism one writes "f(a,b)a = b" to express identity, Wittgenstein writes, "f(a,a)." "Identity of object I express by identity of sign, and not by using a sign for identity. Difference of objects I express by difference of sign." (5.53) The point is that identity is reflected in the nature of the symbolism itself, instead of being applied to an object by our symbolism.

The distinction between signs, which are mere sounds or scratches on paper, and symbols, which are such signs *in their projective relation to the world*, (3.32-3.323) is the crux of the argument. A nonsensical string of signs, e.g. "counter apple loves," is not an illegitimately constructed proposition; it isn't a proposition at all. It is a fact in the world that stands in no pictorial relationship because it possesses no *pictorial* form, and therefore the "names" "counter, apple, loves" do not connect to objects. They can only do so in an actual proposition. (3.3) The butterfly's feelers, so to speak, have not yet been laid down. Only by actually possessing the right kind of logical form can a sentence *be* a proposition. The very possibility of a normative logic is already ruled out by the picture theory of meaning.

Both Frege and Russell present their logical systems as following from a small number of "basic laws" or "primitive propositions" – they present them as a system of truths. Wittgenstein critiques this,[67] and argues that what their systems attempt to *say* is *shown* through the dissolution of sense in tautology and contradiction. This idea was already developed in 1914,[68] and received its full formulation in the *Tractatus*: "The propositions of logic demonstrate the logical properties of propositions by combining them so as to form propositions that say nothing." (6.121) And again,

> If, for example, two propositions 'p' and 'q' in the combination 'p → q' yield a tautology, then it is clear that q follows from p. For example, we see from the two propositions themselves that 'q' follows from '(p → q) & p", but it is also possible to show it in *this* way: we combine them to form "[(p → q) & p] → q", and then show that this is a tautology. (6.1221)[69]

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[67] See especially 6.127 ("it is not the case that some propositions of logic are essentially primitive propositions and others essentially derived propositions…") and 6.1271 ("It is clear that the number of 'primitive propositions of logic' is arbitrary…")

[68] See *Notes Dictated to G.E. Moore in Norway*, 108-109, for a primitive version of the following passages from the *Tractatus*. In 1913 Wittgenstein held that the propositions of logic are not tautologies, but *generalizations* of tautologies (i.e. not "p v ~p" but rather "(p)p v ~p"). (See NL 94 and 104 for a statement of the position, and NB 11-12 for the entries in which he first rejects it.) The simplest reason why Wittgenstein rejects this earlier position is that he comes to reject the possibility of quantifying over propositions. Rather, given his new analysis of generality (as explained in section 3), "p v ~p" itself shows what "(p)p v ~p" attempts to say.

[69] See also 6.12-6.1201, 6.124, 6.126-6.1261, and 6.22. An interesting remark about the implications of tautology and contradiction appears in the *Notebooks*: "The tautology *shows* what it appears to *say*, the

While we might be able to immediately see the logical implications of some statements, some logical propositions could need "discovering," that is, they might be immensely complicated. (6.1262) The method for discovering them would be to (1) conjoin and bracket the premises, (2) make the result the antecedent of a conditional, (3) make the "conclusion" of the proof the consequent of that conditional, and then (4) to show, via the truth-tables, that this construction is a tautology.[70] It is in showing that the senses of the propositions dissolve in such a combination that the structures of those propositions are made clear. But we aren't thereby deducing anything *new*; we are simply showing what was already displayed in the propositions themselves – their logical structure.

Thus this "method of discovery" is advocated *as such* in the early 1913 "Notes on Logic," but in the *Tractatus* itself this idea is taken to show that "we can actually do without logical propositions; for in a suitable notation we can in fact recognize the formal properties of propositions by mere inspection of the propositions themselves." (6.122) The TF notation and the truth-tables[71] are both just such suitable notations, in that through writing *any* proposition as a truth table we would be able to see clearly which other propositions are contained in it, without having to actually combine them so as to form either a tautology or a contradiction. "It is the peculiar mark of logical propositions that one can recognize that they are true from the symbol alone, and this fact contains in itself *the whole of the philosophy of logic*." (6.113, italics mine)

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contradiction shows the *opposite* of what it appears to say." (NB 12) For a formal elucidation of this point, see 6.1201.

[70] I present this as a "process" or a "method" for proving a proposition to connect Wittgenstein's position to more standard accounts of proof, but for him this method is unnecessary; all that matters is simply displayed in the final product: the truth table. "In logic process and result are equivalent." (6.1261)

[71] Both are a further development of the "ab" notation from "Notes on Logic," which was Wittgenstein's first attempt at an adequate symbolism. See NL 95-96, 102, 106 and WL 33, 40-43. These passages also contain an excellent discussion of the philosophical import of such a notation.

There are two chief elements in Russell's philosophy of logic: that we are acquainted with logic and *also* that for language to be meaningful it must be logical. Russell keeps these two issues separate: we are acquainted with logic through self-evidence and *then* we apply it to language; we are thus left with the possibility (or as Russell believes: the actuality) that the application won't match the logic. While Wittgenstein does hold that we have immediate acquaintance with logic, i.e. it *shows* itself, we have it precisely because it *is* reflected in language, not because it *ought* to be. Thus "it is clear that logic cannot clash with its application." (5.557) Granted, we still might actually have to *do* something, namely construct a proper logical symbolism, but such a symbolism is not a replacement for natural language. A proper logical symbolism is simply one in which we can see more clearly what was already in a language. Wittgenstein expresses this wryly in the notebooks, writing after the third occurrence of "logic must take care of itself:" "all we have to do is look and see how it does it." (NB 11)

2. Logical truths are analytic

What Wittgenstein *means* by this claim is *prima facia* quite clear; he writes at 6.1, "The propositions of logic are tautologies," and then at 6.11, "Therefore the propositions of logic say nothing. (They are the analytic propositions.)" That is, logic has no content (is senseless), in the sense already explained. In this section I would like to discuss the *import* of this view. As an elucidation, consider the debate between Russell and Wittgenstein regarding logic's generality. According to Russell (and Frege), the propositions of logic receive their special status by being absolutely general, since they apply to *anything.*[72] The *Principia* states,

[72] See Russell 1903, xii and xvii. In October of 1914 (NB 10-14) Wittgenstein still accepted Russellian complete generality as a distinctly logical mark, and struggled to explain how such propositions could fail to attach to the world (viz. be tautological). Eventually he gives up, deciding that "from all this, of course, it follows that *there*

"The ideas and propositions of logic are all *general*: an assertion (for example) which is true of Socrates but not of Plato, will not belong to logic, and if an assertion which is true of both is to occur in logic, it must not be made concerning either, but concerning some variable x." (PM 93) In virtue of dealing with variables, propositions of logic make statements about all things. Again in *Theory of Knowledge*:

> The proposition 'if Socrates is human, and whatever is human is mortal, then Socrates is mortal' might be thought, at first, to be a proposition of logic. But it is obvious that its truth is in no way dependent on any peculiarity of Socrates or humanity or mortality, but only on the *form* of the proposition; that is to say, Socrates, humanity, and mortality may be varied as we please without the proposition ceasing to be true. Thus we arrive at the pure logical proposition: "Whatever x and Ψ and Φ may be, if x is Ψ and whatever is Ψ is Φ, then x is Φ." (TN 98)

Wittgenstein found this unacceptable, because "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." (6.1231) A logical proposition might, or it might not, be generalized. This is unimportant. What matters is that there is no content to the proposition.[73]

Wittgenstein's suggestion that one could even do logic with *contradictions* (6.1202) indicates just how radical his break from this idea is, and it brings out the real force of his claim that logic is analytic. For if, as according to Frege and Russell, logic gives the *most general truths about reality*, a claim that logic could be a series of false – indeed contradictory – propositions would appear to be the ravings of a mad anti-logician. But, because of Wittgenstein's purely logical definition of tautology, and demonstration that it exhibits the

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are completely general propositions!" (NB 14) and develops the view of the *Tractatus* according to which completely generalized propositions can provide a *description* of the entire world, instead of being *logical* propositions. (5.526-5.5261)

[73] Indeed, there *can be no distinction* between particular and general content in logic, since there is no content. (5.454) But one might still say that for Russell the propositions of logic are general in that they apply to *all* objects, whereas for Wittgenstein they are general in that they apply to *none*.

same essential characteristic as contradiction (namely dissolution of sense), this blasphemy becomes an almost obvious point.

There is another important aspect to the claim about contradiction at 6.1202 that has eluded commentators.[74] For a proposition to have a sense it must be an expression of bipolarity: capable of both truth and falsehood. In lacking just this characteristic tautology and contradiction become *senseless*. But, nonetheless, the symmetry of truth and falsehood is reflected in the contrast between tautology and contradiction itself. Wittgenstein wrote of 4.464 to C.K. Ogden, "Here I have put 'tautology' and 'contradiction' in the SINGULAR and 'propositions' in the *plural* deliberately because there are in fact no contradictions but there is only contradiction, for they all mean the same thing, i.e. nothing. And the same applies to tautology." (Wittgenstein 1973, 30; cf. 5.43 and 6.11)[75] Thus bipolarity is not reflected in individual contradictions or tautologies, but in the fact that logic could consist of either tautology or contradiction. It is for this reason that logic is *senseless* and not *nonsensical*. The dissolution of sense in logic is therefore a collapse of truth into falsity, and vice-versa. But this is an *empty* collapse, since nothing is said to either be or not be the case. By each being nothing, truth and falsity in logic are essentially the same thing. We saw already that 'p' and '~p' have the same meaning but opposite sense. The same is true of 'p v ~p' and '~(p v ~p)'. The important distinction between the p/~p case and the tautology/contradiction case is that the "same meaning" shared by tautology and contradiction is *nothing*. If sense is the presentation of a meaning *with direction* (positively or negatively), and there is no meaning,

[74] Indeed, this passage itself has eluded comment at all. Max Black, for example, in his "passage-by-passage" commentary on the *Tractatus*, simply repeats the remark without saying anything about it. (Black 1964, 321)
[75] This distinction between singular and plural is absent in the Pears and McGuinness translation.

then there can be no presentation of it.[76] This is what the senselessness of logic consists of: tautology and contradiction are "directionless."

Wittgenstein's earliest surviving logical remarks (a letter to Russell from June of 1912) state that "Logic must turn out to be of a TOTALLY different kind than any other science." (WL 10) The same idea is expressed at 6.112: "The correct explanation of the propositions of logic must assign to them a unique status among all propositions." Claims about the *a priori* status of logic appear throughout the *Notebooks* and the *Tractatus*, but most important is that, since they are not pictures of anything in the world, no experience of anything in the world could justify their truth: "a priori knowledge that a thought was true would be possible only if its truth were recognizable from the thought itself (without anything to compare it with)." (3.05) The purpose of Wittgenstein's logical symbolism is to show that logical propositions have precisely this characteristic. Logical propositions say nothing at all. They are analytic.

3. Logic is simple

A simple glance at either the *Basic Laws* or the *Principia* immediately reveals Wittgenstein's target with this point. Both works give primitive (and "independent") ideas and propositions, i.e. axioms on which logic is to rest. In Russell, all of these are further divided in accordance with the theory of types, such that virtually *everything* logical – even truth and falsity – has a separate definition corresponding to each type. (PM 42, 46-47)[77]

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[76] The problem corresponds to Frege's infamous claim that empty referring expressions have a sense. (SM 32-33) Evans gives an extended criticism of this position of Frege's. (1982, 10-33)

[77] Wittgenstein explicitly criticizes this at 5.451: "For example, once negation has been introduced, we must understand it both in propositions of the form '~p' and in propositions like '~(p v q)', '(∃x)~fx,' etc. We must not introduce it first for the one class of cases and then for the other, since it would then be left in doubt whether its meaning were the same in both cases, and no reason would have been given for combining the signs in the same way in both cases." (Cf. 5.46 and NB 21) This shows also that Wittgenstein's objection to

Some variation of this conception of logic – as resting on a number of primitive ideas – is the core of almost all formal systems of logic, both before and after Wittgenstein. Nonetheless, he calls it into question. Consider the following series of remarks:

> 5.453 All numbers in logic stand in need of justification.
> Or rather, it must become evident that there are no numbers in logic.
> There are no pre-eminent [ausgezeichneten] numbers.
> 5.454 In logic there is no co-ordinate status, and there can be no classification.
> In logic there can be not distinction between the general and the specific.
> 5.4541 The solutions of the problem of logic must be simple, since they set the standard of simplicity.
> Men have always had a presentiment that there must be a realm in which the answers to question are symmetrically combine – a priori – to form a self contained system.
> A realm subject to the law: Simplex sigillum veri.[78]

Logic cannot significantly be divided into parts – "there are no numbers in logic." (5.453) Wittgenstein wrote to C.K. Ogden (as it appears at 4.128) regarding this remark:

> What I meant was that in Logic there are no numbers which are in any sense more important or of any greater significance, in any sense preeminent, as compared with the rest of numbers. Such for instance many people believe that the number *one* is such a number or the number 3. And if – for instance – there was in Logic a definite number of primitive propositions or of primitive ideas – say the number one or any other – then this number would have, in some sense, to *prevail* all through logic and consequently also throughout philosophy. It would then be a number more important than the rest, an "ausgezeichnete Zahl." [pre-eminent number] (Wittgenstein 1973, 29)

Thus we see that the division into, on the one hand, a number of *general* primitive propositions, ideas, and axioms, and on the other, the theorems that follow from them, is misguided.[79] All the propositions of logic – regardless of where they occur in the process of

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the theory of types is neither a "digression," nor based solely on the criticism regarding the mention of meanings, as Black holds, but is central to and follows from his whole philosophy of logic.

[78] See also NB 40 and 83.

[79] Another criticism of this idea comes at 6.1271: "It is clear that the number of 'primitive propositions of logic' is arbitrary, since one could derive logic from a single proposition, e.g. by simply constructing the logical product of Frege's primitive propositions." This arbitrariness is further compounded by the disparity between different author's, even between different works of the same author. In the *Principles,* for example, Russell states that "all mathematics can be strictly and formally deduced from, and all the entities that occur in mathematics can be defined in terms of … twenty premises." (Russell 1903, 4)

derivation – say nothing: "Logic is not a body of doctrine, but a mirror-image of the world." (6.13) While it certainly is *possible* to write such a book on logic, one is only able to use "such peculiar crotchets and contrivances" because "they are all connected with one another in an infinitely fine network: the great mirror." (5.511) Once the idea that logic expresses general truths has been abandoned, the point immediately follows. Logic is ultimately simple, and because of its emptiness, it is all contained systematically within itself.

The most concrete manifestation of this view comes in Wittgenstein's "fundamental idea," that the 'logical constants' are not representatives; there can be no representatives of the *logic* of facts" (4.0312)[80] The point appears already in Wittgenstein's first logical letter to Russell, ("there are NO *logical* constants") (WL 10), and is one of the few ideas held consistently in all sources from 1912 to 1921. Through his theory of acquaintance, Russell argues that to be acquainted with any proposition we must be acquainted with its logical form, and therefore with the objects which correspond to "particulars," "universals, "or," "not," etc… (TN 99) Even if the view that these are "entities" is given up (*Loc. Cit.)*, we are left with logical *constants*. These would be the 'primitive ideas" of the *Principia*, through which everything else is defined. But in laying bare the truth-possibilities of propositions via the truth-tables, Wittgenstein eliminates this intuitive pull. The truth-table *itself* can be understood as a propositional sign (a sentence), (4.442) and once the logical constants ("&", "v", "→", etc…) are eliminated from the propositional sign, the desire to postulate an object for them to correspond to is on par with postulating objects for the horizontal and vertical lines of the truth-table. (4.441)

[80] McGuinness (1974) and Baker (1988, 37-41 and 102-103) both give excellent discussions of this point, explaining it against Russell's and Frege's philosophies, respectively. Ricketts (2002) addresses both. The virtue of all three of these articles is that they take seriously the claim that this is the *Grundgedanke* of the *Tractatus*.

Wittgenstein not only eliminates the *motivation* for positing logical objects; he also supplies an argument for why one *can't* view logical constants as objects: "if there were an object called '~', it would follow that '~~p' said something different from what 'p' said, just because the one proposition would then be about ~ and the other would not." (5.44) Likewise with any of Russell's logical constants:[81] because of the inter-definability of the various constants, it would appear that two completely synonymous statements (i.e. "p → q" and "~p v q") would be about different things. We are led to the simplicity of logic: there really *isn't* any difference between "p → q" and "~p v q." The truth-tables show this; it is *because* there is no difference between the two that there can not be logical objects.

Thus, in addition to rejecting the objects that are to correspond to the logical constants, he rejects the logical constants *themselves*, insofar as they are taken to be a multiplicity of "indefinables." Wittgenstein writes, "The interdefinability of Frege's and Russell's 'primitive signs' of logic is enough to show that they are not primitive signs… And it is obvious that the '→' defined by means of '~' and 'v' is identical with the one that figures with '~' in the definition of 'v'; and that the second 'v' is identical with the first one; and so on." (5.42) The point is that selecting two constants as primitive does not change anything about them – they remain the same constants as when one makes a different selection. And the point remains as we move from propositional to predicate logic: "This vanishing of the apparent logical constants also occurs in the case of '~(∃x).~fx', which says the same as (x).fx', and in the case of '(∃x).fx.x = a', which says the same as 'fa'." (5.441) There is not a *unique* set of logical constants from which all others are to be derived.

What, then, are logicians to use instead? If "p v q" isn't about "p," "q," and the logical constant "or," what *is* the meaning of a molecular proposition? This is precisely the

[81] The same criticism applies to Frege.

question Wittgenstein asked himself in June of 1912 following his having informed Russell that "there are NO logical constants."[82] After considering various proposals, he found the germ of his final solution: "I believe that our problems can be traced down to the *atomic* propositions." (WL 16)[83] This should strike one as paradoxical, since atomic propositions are simply defined as those which *contain no logical connectives*. How, then, could a correct analysis of atomic propositions make the nature of logical connectives clear?

This problem is central for Wittgenstein's philosophy of logic. For it has all revolved around the idea that logic is empty, but if logical symbols have no referents what is it that they contribute to a proposition? Wittgenstein answers this question with the general propositional form.

4. The general form of a proposition

The central importance of the general form is reflected clearly in the numbering of the *Tractatus*. The book consists of seven remarks, with everything else being a comment on those remarks. It begins with a characterization of the world (1) and that out of which the world is constituted: facts (2). We then move to isomorphic *representation* of facts in thoughts (3), which are subsequently identified with propositions (4). The truth-functional nature of a proposition is then given (5). Thus as we arrive at the general logical form of a truth-function (6), we are given a characterization of the essence of both representation *and* the world. When Wittgenstein wrote in the *Notebooks* that his whole task consists in explaining the nature of the proposition, he continues with, "in giving the nature of all being." (NB 39)

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[82] He was tormented, writing in August, "Now as to 'p v q' etc.: I have thought that possibility – namely that all our troubles could be overcome by assuming different sorts of Relations of signs to things – over and over and over again! For the last 8 weeks!!! But I have come to the conclusion that this assumption does *not* help us a bit." (WL 15)

[83] See also NB 28-29, 36-40, 45, 71, 76, and 89-90.

In the *Tractatus*: "To give the essence of a proposition means to give the essence of all description, and thus the essence of the world." (5.4711)

Given all the previous considerations, what Wittgenstein needs is a logical construction which will, (1) be transcendental, that is, support natural language, not correct it (2) be obtained wholly *a priori* and contain the necessary form of all propositions, (3) contain within itself the "peculiar crotchets and contrivances" of logic (primitive propositions, axioms, inference rules), and (4) show that the meanings of all the "logical constants" are contained in elementary propositions, which (paradoxically) don't even contain logical connectives.

The general propositional form is formulated twice in the *Tractatus*; once in the vernacular and once in logical symbolism. The first presentation is as follows:

> It now seems possible to give the most general propositional form: that is, to give a description of the propositions of *any* sign-language *whatsoever* in such a way that every possible sense can be expressed by a symbol satisfying the description, and every symbol satisfying the description can express a sense, provided that the meanings of the names are suitably chosen.
> It is clear that *only* what is essential to the most general propositional form may be included in its description – for otherwise it would not be the most general form.
> The existence of a general propositional form is proved by the fact that there cannot be a proposition whose form could not have been foreseen (i.e. constructed). The general form of a proposition is: This is how things stand. (4.5)[84]

Any proposition, irrespective of whether it is a thought, an English, Chinese, or German sentence, or an arrangement of tables and chairs, in order to *be* a proposition, must possess a sense. It must be capable of both truth and falsehood. Wittgenstein declares that "a proposition *shows* its sense" (4.022) and writing a proposition as a truth-table makes this abundantly clear. In order to be *capable* of both truth and falsehood, a proposition must represent a state of affairs that either exists or does not exist. It must state *how things stand*,

[84] See NB 71, 89

only in doing so does it become a proposition at all. Thus "This is how things stand" gives that which is essential to all propositions.

The picture theory of meaning might be seen as the philosophical foundation for the logic of the *Tractatus*. On Wittgenstein's view this would be a mistake. It is *equivalent* with the logic. As we saw, according to the picture theory of meaning, a picture has a *sense*, that is, it pictures a situation in logical space in virtue of having both a true and a false pole. According to remark (5), all propositions are truth-functions of elementary propositions, which is to say that a proposition obtains its bipolarity in virtue of being a function on the truth and falsity of propositions – again, this is made clear in the truth-tables as propositional signs. "The sense of a truth-function of p is a function of the sense of p." (5.2341) When we connect elementary propositions using the propositional connectives we do not get a *new* type of function; we simply rearrange the senses of the elementary propositions. A proposition is a picture oly in virtue of being such a function. What the logical formulation gives is the form of all possible truth-functions, through which propositions are pictures. It shows in a logical symbolism the form that all pictures must possess in order to correspond to a state of affairs.

To understand Wittgenstein's logical formulation of the general propositional form we need to understand three things. The first is Dr. Scheffer's famed *Sheffer-stroke*, expressed as "p | q". The Scheffer-stroke can mean either "neither p nor q" or "either not p or q" (both are equivalent in power). Russell explains clearly in his introduction how all truth-functions follow from the Sheffer-stroke: "'Not-p and not-p' is equivalent to 'not-p', hence we obtain a definition of negation in terms of our primitive function: hence we can define 'p or q', since this is the negation of 'not-p and not-q', i.e. of our primitive function." (Russell 1922, xvi). Once we have negation and disjunction, both Frege and Russell had shown

clearly how to obtain implication and conjunction.[85] Wittgenstein's "operation N" is similar to the Scheffer-stroke, but not identical to it (as is sometimes supposed); it makes *use* of the sheffer-stroke.

Next is Wittgenstein's notion of an *expression*. An expression is "any part of a proposition that characterizes its sense," (3.31) and is presented as the sole constant in what Wittgenstein calls a "propositional variable." (3.312) He writes, "Thus an expression is presented by means of a variable whose values are the propositions that contain the expression… I call such a variable a 'propositional variable.'" (3.313) For example, from "Fa" we can obtain three propositional variables: by turning "a" into a variable we isolate the "F" as expression, and "Fx" becomes a propositional variable with "Fa," "Fb," etc. as values; turning "F" into a variable gives us "Φa" (values "Fa," "Ga," etc.); and finally, if we turn *both* "F" and "a" into a variable we get "Φx."[86] The third variable is a logical prototype; it is no longer "dependent on any convention, but solely on the nature of the proposition." (3.315) We would have obtained other prototypes had we begun with "aRb" or "(x)Fx."

And finally we must grasp Wittgenstein's notation. He writes: "Every truth-function is a result of successive applications to elementary propositions of the operation '(-----T)(ζ, …..).' This operation negates all the propositions in the right-hand pair of brackets, and I call it the negation of those propositions." (5.5) The first bracket contains the final line on a truth-table; the second bracket contains an arbitrary selection of propositions. The truth-function that results from this operation is true just in case all of the propositions listed on the right are false, viz. only the last line on the truth table yields a T. To simplify, he writes

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[85] In the introduction to the second edition of the *Principia* Russell carries this through in detail. (For example, "p → q" can be written "p|(q|q)") See PM xvi-xix.

[86] Note that we don't have to aimlessly choose what to take as values for a propositional variable; these values are determined by the form of the variable. Wittgenstein argues at 3.316-3.317 that we *stipulate* the values of the variable, but we do so by "giving a description of the [values]." This is achieved through the present process of abstraction: the form of the variable determines its values.

"N($\bar{\zeta}$)."[87] "N" stands for the operation that yields a true proposition just in case all its bases are false, and the bar before (or over the top of) "ζ" indicates that the variable is representative of *all* of the propositions in the right-hand brackets. "What the values of the variable are is something that is stipulated," (5.501) and so if we *stipulate* that the value is just "P," then we simply have negation, if we stipulate that the values are "P" and "Q," we have the sheffer-stroke. As Soames explains "N", "it is like the [Scheffer-stroke] in expressing joint denial; it is a generalization of it in being able to operate not just on pairs of propositions, but on arbitrarily large collections of them." (Soames 1983, 574)

Now that we have a single operation in terms of which all others can be defined, we can express the general form of a proposition: [$\bar{p}$, $\bar{\zeta}$, N($\bar{\zeta}$)]. (6) "What this says is just that every proposition is a result of successive applications to the elementary propositions of the operation 'N($\bar{\zeta}$)'." (6.001)[88] "$\bar{p}$" stands for the totality of all elementary propositons, "$\bar{\zeta}$" stands for any arbitrary selection of propositions (either elementary propositions or propositions that have already resulted from applications of this operation), and "N($\bar{\zeta}$)" is the operation from above with the selection "$\bar{\zeta}$" as its base.

As an illustration, imagine a world with three elementary propositions: "Φa," "Φb," and "Φc." These three would then constitute all the values of "$\bar{p}$." "$\bar{\zeta}$" stands for any selection of those values, so let us take "Φa:" we obtain negation ("~Φa"). Let us do the same to "Φb," and then select these two negated propositions as bases, giving us conjunction ("Φa & Φb"). From here we could easily derive disjunction and implication. If we select all three elementary propositions we get "(x)~(Φx)" or "~(∃x)(Φx)." Another application gives us "(∃x)(Φx)." Finally, if we begin by negating each proposition

[87] My symbol deviates slightly from Wittgenstein's. The "$\bar{}$" occurs over the top of "ζ" in the *Tractatus*.
[88] Russell's explanation in the Introduction (xvi-xvii) is very clear.

individually, and then select those three negative propositions as values we obtain, via double-negation: "(x)(Φx)." We thus obtain both *universal* and *existential* quantification.

What is especially peculiar to the *Tractatus* is this attempt to derive *generalized* propositions – those containing quantification – using a single operation, thus breaking radically from both Frege and Russell (and subsequent logicians). Both of them saw quantification as essentially different from propositional connectives. Wittgenstein's account of generality is as follows: "If ζ has as its values all the values of a function fx for all values of x, then $N(\bar{\zeta}) = \sim(\exists x)fx$." (5.52) This has proved incredibly controversial,[89] but the criticisms of this idea typically ignore the fact that an expression can be "presented *by means of a variable* whose values are the propositions that contain the expression." (3.313; emphasis mine) It is asked, how do we know that we have *all* of the propositions of a given form?[90] If we have a finite number of such propositions Wittgenstein's claim is unproblematic; but how are we to stipulate that it applies to the whole *infinite* number of propositions with a given form? We need some means of stipulating the infinite number of propositions. But this is exactly what a prototype does: it stands for all forms of a given type by being an expression of their form. Thus we can append the "N" operator to a prototype and obtain quantification over infinite domains.[91]

It is important to see that the remarks about generality are surrounded by a discussion of logical form and logical space. As was already explained in chapter I, each proposition "reverberates through the whole of logical space," and Wittgenstein restates this principle immediately following the account of generality: "If objects are given, then at the

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[89] See Fogelin (1995), 78-83 for a criticism of Wittgenstein. Geach (1981, 1982) and Soames (1983) both give solid responses to Fogelin.
[90] Russell already made this criticism in *The Philosophy of Logical Atomism* (1918, 42), and Anscombe expressed the same concern. (1971, 148)
[91] See Soames (1983) 574-575 and 582-586 for a technical account of how to express nested quantifiers with this operation.

same time we are given *all* objects. If elementary propositions are given, then at the same time *all* elementary propositions are given." (5.524)[92] Each proposition marks a location in logical space, and "the whole of logical space must already be given by it." (3.42) As Black explains this passage, "if the 'whole of logical space' were not already 'given' by the significance of a propositional sign, p, this would mean that the sense of p failed to determine the relation of p to some truth-function of which it is a component." (Black 1964, 157) The justification for how a propositional variable is able to present *all* propositions of a particular form is thus transcendental: only its possibility guarantees that propositions are situated in logical space. Their forms are all in a systematic relation to one another in order that they may be combined with one another; what a propositional variable does is present those forms.

We can finally return to the problem which plagued us at the conclusion of the previous section: how is an account of atomic propositions supposed to explain the meaning of the logical connectives? Wittgenstein's answer is that, just as "p → q" can also be written "~p v q,"

> An elementary proposition really contains all logical operations in itself. For 'fa' says the same thing as '∃x(fx.x=a).' For wherever there is compositeness, argument and function are present, and where these are present, we already have all the logical constants." (5.47)

The logical constants are, in a word, *nothing*. No matter what logical devices we introduce, they can all be captured by successive applications of the operation "N" to elementary propositions; there is nothing more to any of the logical connectives. They introduce nothing essentially new to propositions – even logical generality (quantification) is the result of successive applications of "N". Molecular assertions do nothing more than assert various

[92] See also NB 76: "For if the elementary propositions are given, that gives us *all* elementary propositions, too, and *that gives us the general proposition*." (emphasis mine)

combinations of elementary propositions; variation in the logical constants spurs variation in the elementary propositions that are asserted, but that is all. We can summarize by thinking back to the maps for the "range left open to the facts." All propositions can do is rearrange those boxes, filling some in with black and leaving others white. Adding more logical connectives simply turns some boxes and some others off, so to speak. No amount of logical complexity introduces new possibilities; the totality of states of affairs remains the same.

Finding out exactly what elementary propositions there are is a matter of the *application* of logic, not a matter of logic itself. (5.557) This is the notion of analysis, but exactly what a Wittgensteinian analysis of the actual world would look like is hard to imagine, especially given that the correct analysis of propositions might yield infinite elementary propositions. (4.2211)[93] At least it would involve showing that an elementary proposition, which might come expressed as a function ("Φa"), could also be written as a simple concatenation of names, which correspond directly to the objects. Such a proposition is completely analyzed. (3.2-3.201)[94]

The argument in the *Tractatus* is not that by carrying through such an analysis we would learn the truth of Wittgenstein's logic. Rather, his logic hopes to establish that such an analysis must be possible, because only if all propositions are truth functions of the senses of elementary proposition could we explain how any of our everyday propositions have

[93] Anscombe correctly stresses this point. (Anscombe 1971, 99) Cf. also 4.002: "Man possesses the ability to construct languages capable of expressing every sense, without having any idea how each word has meaning or what its meaning is." In fact, this view follows from Wittgenstein's same grounds for rejecting Russell's axiom of infinity – for a determination that there must be a finite number of elementary propositions would entail that there are a finite number of objects, and how many objects there are can be of no consequence for logic.
[94] Anscombe explains how a concatenation of names, say "abcd" is also a function. We can turn any of the expressions into propositional variables, (i.e. "axcd"), and thereby produce a function.

meaning.[95] Wittgenstein has explained how "words are like the film on deep water," (NB 52) being supported, like lily pads, on an immensely complex logical structure. But nonetheless, we need only know that *something* is supporting them – not exactly what. Gordon Baker develops this point in detail, concluding,

> In advance of identifying simple objects and of ascertaining the composition of elementary propositions certain crucial insights are claimed to be established: the existence of simple objects, the independence of atomic propositions and the equivalence of any proposition with a truth-function of elementary propositions. Such philosophical propositions are, as it were, *a priori*. They are known in advance of any detailed philosophical analysis of language. But investigation of the application of logic will yield not contingent truths, but further *a priori* propositions. By implication, the *Tractatus* enshrines the view that the grammar of a language can be split up into two layers, one more fundamental than the other. (Baker 1988, 110)

We can see why one of Wittgenstein's later criticisms of his early thought is particularly striking: "don't think, but look!" (PI § 66) For, in the strictest sense, the *Tractatus thinks*, and leaves open the possibility that *everything* is hidden. What is ultimately rejected in Wittgenstein's later writings on language is the entire logical scaffolding of the *Tractatus*, in that language is not seen as significant via its logical underpinnings but rather because of its interaction with daily life. Frege saw the surface of language as hopelessly problematic for scientific purposes; his Conceptual Notation is meant as a scientific *replacement* for natural language. Russell held this position, too, but he showed through the theory of descriptions, as Wittgenstein put it, that "the apparent logical form of a proposition need not be its real one." (4.0031) Wittgenstein adopts this consequence of the theory of descriptions, but he abandons the Fregean element still present in Russell's view: for Wittgenstein everyday speech is in perfect logical order, it just isn't clear what that order is. His logic is not meant to *replace* language, but to explain how language actually works.

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[95] As Gordon Baker puts it, "Everything depends on the *possibility* of a complete analysis, but nothing depends on having completed any analysis!" (Baker 1988, 86)

Ultimately we are left with a *nonsensical* explanation of how *senseless* proposition underlie propositions with *sense*. The propositions of logic explain everyday speech by displaying their logical form *in a systematic way* (NDM 108), and they are therefore senseless, but statements *about* logical propositions (i.e. the statements of the *Tractatus*) are nonsensical. A proposition is a *fact*, and a fact is a combination of *things*. From this it follows that a proposition can't be a constituent of a proposition. It can, of course, be the base of a logical operation that yields a new truth-function, but it is clear that "possesses a sense," "is a fact," etc. are not logical operations. While we have seen that a massive number of disparate issues and problems receive, "on all essential points, the final solution," (Preface), we have yet to explain "how little is achieved when these problems are solved." This will be the concern of the final chapter.

IV. A Limited Whole

Ethics, if it is anything, is supernatural and our words will only express facts; as a teacup will only hold a teacup full of water even if were to pour out a gallon over it. (LE 40)

1. Ethical and logical necessity

A point often made in ethics is that "ought" implies "can." It is characteristic of Wittgenstein (both early and late) to stress that one can only *say* that something is true if it is possibly false. From this it follows that "ought" must also imply "can't," for without "can't," "can" makes no sense. The point here is simple: it is absurd to give someone an imperative to do something that they can't *not* do. We saw this already with logic: in giving *necessary* conditions, logic is prohibited from telling us how language, or the world, ought to be.

Wittgenstein writes in the *Notebooks*, "Ethics must be a condition of the world, like logic." (NB 77) A slightly less direct statement of the position is given at 6.43: "If the good or bad exercise of the will does alter the world, it can alter only the limits of the world, not the facts – not what can be expressed by means of language." Just as the propositions of logic are the *limiting* propositions (and in limiting language they also limit the world), a good or bad will limits the world. This follows also from my interpretation of a "condition of the world" as being a *transcendental* condition. Wittgenstein writes at 6.13, "Logic is transcendental" and then at 6.421, "Ethics is transcendental." This is not to say that logic and ethics are the same thing, but they are structurally similar.[96]

In chapter II I grappled with the problem of how logic could be neither descriptive *nor* prescriptive. Here the same paradox arises, but with even more force: how could *ethics*

[96] See Diamond's brief discussion of this relationship in Diamond 2000, 168.

fail to be normative? Immediately following the "Ethics is transcendental" remark, Wittgenstein writes,

> When an ethical law of the form, 'Thou shalt…', is laid down, one's first thought is, 'And what if I do not do it?' It is clear, however, that ethics has nothing to do with punishment and reward in the usual sense of the terms. So our question about the *consequences* of an action must be unimportant. – At least those consequences should not be events. For there must be something right about the question we posed. There must indeed be some kind of ethical reward and ethical punishment, but they must reside in the action itself. (6.422)

Since ethics is transcendental, it should be impossible respond to an ethical imperative with "and what if I do not do it?" But we can do this. One might be tempted to take this as a refutation of the view that ethics is transcendental, but Wittgenstein immediately dismisses this temptation by pointing out that the question is confused. The imperative to do (or not to do) any action must be independent of its consequences. Just as the logic of a proposition must reside in the proposition itself (not in something else to which it refers), the ethics of an action must reside in the action itself. At this point it still seems as if ethics is ushering in prescriptions. In this passage he doesn't reject all laws of the form "Thou shalt…", but only those in which the imperative is based on consequences.

Wittgenstein's 1929 "Lecture on Ethics" clears things up. In the beginning of the lecture Wittgenstein goes on as if ethics is normative; he says that ethics might be thought of as "the right way of living" (LE 38), and then he draws a distinction between relative and absolute value. Relative value is simply value according to a predetermined purpose, i.e. a chair is good if it is comfortable and sturdy. A relative imperative is one according to a predetermined goal, i.e. one ought to exercise *if* one wants to be healthy. If someone tells me I ought to exercise, and I tell them I simply don't care about my health, then there is little more that he can say. Then Wittgenstein says,

> Suppose I had told one of you a preposterous lie and he came up to me and said 'You're behaving like a beast' and then I were to say 'I know I behave badly, but then I don't want to behave any better,' could he then say 'Ah, then that's all right'? Certainly not; he would say 'Well, you *ought* to want to behave better.' Here you have an absolute judgment of value. (LE 39)

While all statements of relative value can be analyzed as statements of fact, he argues that there can be no proposition which makes an absolute value judgment. He gives another example, which brings us back to the connection to logic and necessity:

> The right road is the road which leads to an arbitrarily predetermined end and it is quite clear to us all that there is no sense in talking about the right road apart from such a predetermined goal. Now let us see what we could possibly mean by the expression '*the* absolutely right road.' I think it would be the road which *everybody* on seeing it would, *with logical necessity*, have to go, or be ashamed for not going. And similarly the *absolute good*, if it is a describable state of affairs, would be one which everybody, independent of his tastes and inclinations, would *necessarily* bring about or feel guilty for not bringing about. (LE 40)

The message here is clear, and it is also clear how it connects with the remark about "Thou shalt ..." laws at 6.422. When an ethicist tells one that they ought to do something, this "something" is a state of affairs which the agent ought to bring about. Even on a non-consequentialist ethical view, the imperative is still to bring about a state of affairs. Wittgenstein rejects this.[97] He writes, "If the good or bad exercise of the will does alter the world, it can alter only the limits of the world, not the facts – not what is expressed by means of language." (6.43) If ethics is to have anything to do with the world it must do so in virtue of limiting the world, just as logic does.

There are obviously differences between logic and ethics. Logical proposition have the unique status of being *senseless*, not *nonsensical*. It is precisely the fact that logic can be displayed in the dissolution of the proposition – tautology and contradiction – that shows its

[97] See also the discussion with the Vienna Circle from December 17th, 1930: "A "should" therefore only has sense when something enforces it – a power which rewards and punishes. A "should" in itself is nonsense." (Wittgenstein 1984b, 118; translation mine)

world-limiting nature. The same is not true of ethical propositions; a remark about the meaning of life is nonsensical, and as such it does nothing to display the structure of language or the world. To understand the sense in which ethics serves as a limit of the world we must understand the connection between the self and the will.

The structural location in the *Tractatus* of the passages which address the self seems jarring. Occurring at 5.6, they are sandwiched between remarks on 5.5 ("Every truth-function is a result of successive applications to elementary propositions of the operation (----T)(ζ, …..)…") and 6 ("The general form of a truth-function is [$\bar{p}$, $\bar{\zeta}$, N($\bar{\zeta}$)] …").[98] This obviously indicates a strong connection between the self and logic, for it is precisely in these surrounding logical remarks that Wittgenstein draws the logical limits of language. 5.6, the proposition on which all the remarks about the self are comments, is: "*The limits of my language* mean the limits of my world." Further reinforcing the connection to logic, the first comment (before passing to solipsism and the self), begins: "Logic pervades the world: the limits of the world are also its limits." (5.61)

Let us look closer at the solipsistic limits. He continues,

> 5.62 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 that language which alone I understand) mean the limits of *my* world.
> 5.621 The world and life are one.
> 5.63 I am my world. (The microcosm.)

In this progression Wittgenstein appears to be nothing more than a strait-forward solipsist, with the caveat that one cannot *say* that one is a solipsist. But as Fogelin has argued,[99] it isn't

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[98] Their structural location in the *Prototractatus* makes the logical connections even clearer; 5.6 does not even occur as a first-level comment, it is at *5.335, with *5.33 being a remark about identity. (5.53 in the *Tractatus*).
[99] See Fogelin 1995, 93-95. Fogelin ultimately concludes that Wittgenstein has no argument, and that Wittgenstein uses the doctrine of showing as "a perfect insulation for a deeply held belief." (95) As with most of Fogelin's work on the *Tractatus*, this chapter is a useful model of how *not* to read Wittgenstein. I will argue this presently.

immediately clear what is motivating the view. These passages refer back to 5.6 ("The limits of my language mean the limits of the world"): whence the sudden appearance of "*my*"? Before 5.6 there is no mention of an individual at all. Both language and the world have been considered more or less asocially,[100] but there has been no mention of privacy either. Consider two more passages:

> 5.631 There is no such thing as the subject that thinks or entertains ideas.
> If I wrote a book called *The World as I found it*, I should have to include a report on my body, and should have to say which parts were subordinate to my will, and which were not, etc., this being a method of isolating the subject, or rather of showing that in an important sense there is no subject; for it alone could *not* be mentioned in that book.—
> 5.64 Here it can be seen that solipsism, when its implications are followed out strictly, coincides with pure realism. The self of solipsism shrinks to a point without extension, and there remains the reality coordinated with it.

These passages seem more like a critique of solipsism, and we are told simply that "there is no such thing as the subject."

The position we're in is this. Wittgenstein has denied that there is any metaphysical subject: there is no "self" whose life the world could be. But he nonetheless says "what the solipsist *means* is quite correct" and "the world and life are one." The synthesis of these contrasting views comes in the *limiting* nature of the self:

> 5.632 The subject does not belong to the world: rather, it is a limit of the world.
> 5.641 Thus there really is a sense in which philosophy can talk about the self in a non-psychological way.
> What brings the self into philosophy is the fact that 'the world is my world.'
> The philosophical self is not the human being, not the human body, or the human soul, with which psychology deals, but rather the metaphysical subject, the limit of the world – not a part of it.

[100] The most notable exception is 4.002 and the role of "rules of projection" in the picture theory (3.12-3.13). While it isn't directly stated, it is at least consistent with the *Tractatus* view to see these rules as established by "enormously complicated" social conventions.

There is no *thing* called the "subject" whose life the world is. Rather, there is simply the world. But nonetheless it is *my* world.[101] "The world is *given* me, i.e. my will enters into the world completely from outside as into something that is already there." (NB 74) We can think back to the book "The world as I found it." Wittgenstein writes, "*I* want to report how *I* found the world… *I* have to judge the world, to measure things." (NB 82) But whereas *the world* is given to me, and I have to judge it, *the I* is not presented to me. It is exactly like our visual field: we do not see the eye, we see *with* the eye. (5.633)

If the metaphysical subject isn't a self that thinks or entertains ideas, what is it? Wittgenstein explains with a division into two senses of the self: "the thinking subject is surely mere illusion. But the willing subject exists." (NB 80) Wittgenstein rejects the traditional solipsistic viewpoint, according to which the world is nothing but a collection of my subjective ideas.[102] But we still confront the world, and there is nothing *in* the world that could account for this. Instead of a thinking subject which confronts ideas, Wittgenstein affirms a willing subject which confronts the world. I can will a fact; I can want a fact to be the case. But "the world is independent of my will." (6.373) There is no logical connection between the world and the will – whatever we will either can or cannot be the case whether we will it or not. (6.374) It is in this connection that the motivation for solipsism is to be found.

Interpretations of Wittgenstein's "solipsism" turn on the parenthetical remark in 5.62: "The world is my world: this is manifest in the fact that the limits of *language* (of that language which alone I understand) mean the limits of *my* world." There are two ways of

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[101] The strongest statement of this position in the *Notebooks* is quite clear: "What has history to do with me? Mine is the first and only world!" (NB 82)

[102] He briefly considers it in the *Notebooks*, writing, "*As my idea is the world*, in the same way my will is the world-will." (NB 85; emphasis mine) But he continues three days later: It is true that the knowing subject is not in the world, that there is no knowing subject." (NB 86)

reading (and translating) the original German ("der Sprache, die allein ich verstehe"):[103] "that language which alone I understand" (Pears and McGuinness) or "*the* [only] language which I understand" (Ogden). The former is a direct statement of solipsism (*only* I understand language), but on this reading Fogelin's claim that Wittgenstein's solipsism is wholly unmotivated is justified. If we read him, rather, as saying that I only understand *one* language, then we have a position that follows immediately from the general propositional form, and *from which* Wittgenstein's particular type of solipsism follows. This will be explained presently.

Recall the first formulation of the general propositional form: "a description of the propositions of *any* sign-language *whatsoever*." (4.5) Of course it would simply be empirically false to say that there is only one natural language, but Wittgenstein is not concerned with the surface distinctions between natural languages.[104] He is concerned with the structure *underneath any* language. And just as "p → q" and "~p v q" are nothing more than notational variants of the same proposition, we should think of "Grass is green" and "Grass ist grün" as nothing more than notational variants. Propositions picture possible states of affairs; any two sentences that picture the same possible states of affairs – however they might *look* or *sound* – are the same proposition. Wittgenstein is expressing *this* in 5.62, and it follows immediately from 5.61: "Logic pervades the world: the limits of the world are also its limits."

But now we must make sense of how this limit of language gives a limit of the world. The point is that there can't be *another* language outside of the one we have; again this follows from 5.61: "We cannot think what we cannot think; so what we cannot think we

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[103] Mounce discusses this distinction. (1981, 91-92)

[104] Note that he says "*sign*-languages" whenever discussing notational variants (3.325, 2.242, 4.011, 4.1121, 4.1213, 4.5 and 6.124). This aligns with his distinction between "sign" and "symbol", where "sign" is the symbol independently of its meaning – it is just a bit of notation. ("We use the perceptible sign of a proposition (spoken or written, etc.) as a projection of a possible situation") (3.11)

cannot *say* either." What a reader is to realize at this point is that language is nothing more than another set of facts which is part of the world. Language, too, is simply part of the world, governed by social conventions and physical bodies. There simply is no way to step outside of the world, because we can only picture it (in thought or speech) through language, which has precisely the same limitations. Propositions are facts, and facts determine the world. So how does this make the world *my* world? Through a simple question: what can we *say* about the will? The answer, of course, is "nothing." We can "isolate" the will by saying which parts of the world are subject to it, and which aren't, but we cannot *mention* it. (5.631) In thus seeing that there is no will *in the world*, we are led to the view that the world as a whole is given *to* the will.

This tension between the world and the will is the primary concern of the last five months of the existing notebooks. What Wittgenstein is trying to establish in these remarks is the conclusion stated at 6.373: "the world is independent of my will." He elaborates in 6.374:

> Even if all that we wish for were to happen, still this would only be a favor granted by fate, so to speak: for there is no *logical* connection between the will and the world, which would guarantee it, and the supposed physical connection itself is surely not something that we could will.

Regardless of how strongly we will for something to happen, this does not guarantee that it is going to. If it did happen it would be "a grace of fate." One obvious counter-example is our own body, and the *Notebooks* are littered with discussions of this problem.[105] But even if our body does obey our own will, it is at least possible that it wouldn't. There is no necessary – no *logical* – connection even between our will and our body. There are a number of passages in which Wittgenstein imagines a person who had no control over anything,

[105] See NB 76, 77, 82, and 84-89.

including his own body (NB 76-77, 81), and it seems clear that in this case we wouldn't deny that this person *had* a will. What this is taken to show is that the *exercise* of the will – that "grace of fate" in which our body (or anything else) actually does obey our will – is not essential to the will itself.

The issue at the beginning of this section was that the will is a *necessary* precondition of the world, and therefore ethics – which resides in the will – can't be normative. But here we see Wittgenstein arguing precisely that there is no such necessary connection: the world is independent of my will. The case is exactly as with logic. Wittgenstein writes, "As the subject is not a part of the world but a presupposition of its existence, so good and evil which are predicates of the subject, are not properties of the world." (NB 79) The same view survives into the *Tractatus*: "So too at death the world does not alter, but comes to an end." (6.431) What *actually* happens is completely irrelevant for both logic and the will. Logic establishes the *possibility* of contingent happenings: all change is a rearrangement of the substance of the world in a logically ordered way. Without the logical structure there could be no rearrangement within that structure. Likewise with the subject: without a subject – *life* – there would be no world. The world *as I found it* is only possible *if* I found it.

If confronting the world is an activity of the will, then the relationship between the will and the world brings us back to ethics. It is exactly in this tension between the necessary presupposition of the will for the world and the independence of the world from the will which is the domain of ethics, as Wittgenstein sees it.

2. Value

The progression starting at 6.4 is the only part of the *Tractatus* which explicitly addresses ethics. In this section I will work through its main line. With only the first-level comments, it runs:

> 6.4 All propositions are of equal value.
> 6.41 The sense of the world must lie outside the world. In the world everything is as it is, and everything happens as it does happen: *in* it no value exists – and if it did exist, it would have no value.
> If there is any value that does have value, it must lie outside the whole sphere of what happens and is the case. For all that happens and is the case is accidental.
> What makes it non-accidental cannot lie *within* the world, since if it did it would itself be accidental.
> It must lie outside the world.
> 6.42 So too it is impossible for there to be propositions of ethics.
> Propositions can express nothing that is higher.
> 6.43 If the good or bad exercise of the will does alter the world, it can alter only the limits of the world, not the facts – not what can be expressed by means of language.
> In short the effect must be that it becomes an altogether different world. It must, so to speak, wax and wane as a whole.
> The world of the happy man is different from that of the unhappy man.
> 6.44 It is not *how* things are in the world that is mystical, but *that* it exists.
> 6.45 To view the world sub specie aeterni is to view it as a whole – a limited whole.
> Feeling the world as a limited whole – it is this that is mystical.

All of this occurs as elucidation of 6.4, which shows that Wittgenstein's primary concern in all of these remarks is the ineffability of ethics and the consequences thereof. Propositions express facts, and that is the end of the matter. All of Wittgenstein's work in logic and language was aimed at establishing this. Even absolutely general truths are nothing more than truth-functions of elementary propositions; there is no room for importance or value in a proposition.

Moving to 6.41, Wittgenstein expresses his conviction that all matters of fact, regardless of whether they are general or particular, are contingent and unimportant. In "A Lecture on Ethics" Wittgenstein asks his hearers to imagine the description of a murder. No matter how much rage or pain such a description causes us, for any description "the murder will be on exactly the same level as any other event, for instance the falling of a stone… there will simply be facts, facts, and facts, but no Ethics." (LE 40) The nonsensicality of ethical propositions "is their very essence… for all I want to do with them is just *to go beyond the world*." (LE 44) If there were ethical propositions, then they would have to express

something in the world, and if they did express something in the world, then they would simply be more contingent facts. This is what Wittgenstein means by saying that if value *did* exist, then it would have no value. He elaborates further on this theme in the "Lecture", asking his audience to imagine the possibility of a science of 'absolute' ethics. He says, "I can only describe my feeling by the metaphor, that, if a man could write a book on Ethics which really was a book on Ethics, this book would, with an explosion, destroy all the other books in the world." (LE 40) The point is that "We cannot write a scientific book, the subject matter of which could be intrinsically sublime and above all other subject matters." (*Loc. Cit.*) By placing ethics outside the world, Wittgenstein is attempting secure for it its properly important place. Contrast this with his view of what *is* sayable, viz. natural science: Wittgenstein calls "the superficial curiosity about the latest discoveries of science one of the lowest desires of modern people." (LE 37)[106]

So far we know that ethics is sublime and ineffable, but what *is it*? At 6.43 we begin to receive hints of a positive account. In the second paragraph we are told that the world becomes a totally *different* world – it "waxes and wanes." Immediately following the "wax and wane" remark in the *Notebooks,* Wittgenstein writes, "as if by accession or loss of meaning." (NB 73) This indicates a connection to 6.521:[107] "The solution of the problem of life is seen in the vanishing of the problem. (Is not this the reason why those who have found after a long period of doubt that the meaning of life became clear to them have then been unable to say what constituted that meaning?)" What we need to make sense of is this: in realizing that

[106] See also 6.371 and 6.372, where Wittgenstein criticizes "the whole modern conception of the world" because it believes the *illusion* that science gives explanations; for Wittgenstein it simply states facts, not explanations of those facts.
[107] 6.521 occurs in the *Notebooks* just two days after the "wax and wane" remark.

there is no problem of the meaning of life (in the sense of a *scientific* problem)[108] the world changes; it becomes "the world of the happy man."

Wittgenstein's explanation is that "in order to live happily I must be in agreement with the world. And that is what 'being happy' *means*." (NB 75) There is a danger of seeing Wittgenstein as simply saying that we ought to accept all the happenings in the world as Good. On this view one can legitimately ask whether or not something is morally acceptable, but it just happens that every such question is answered in the affirmative. *This* is certainly not Wittgenstein's position. Rather, we have to return to the considerations of section 1: the world is independent of my will. In order to be content one must make oneself independent of all contingent states of affairs. We begin the process by asking questions about value: i.e. is it good that Jones is miserable, that I am without work, that my mother is dead. These questions are the problem of life – Wittgenstein calls them "the misery of the world." (NB 81) His idea is that in seeing that we can't do anything about these things we see, not that they are acceptable, but that there is no sense in questioning them in the first place. The world is in a constant state of flux and there is nothing we can do to control that flux; all we can do is look at the world (life) *as a totality* and be either content or not. In choosing the former one becomes "in agreement with an alien will" (fate); one is "doing the will of God." (NB 75)[109]

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[108] This is an important condition; in saying that the problem vanishes Wittgenstein is certainly not saying that we should just stop caring about what was originally worrying us. This interpretation is supported by all of the remarks surrounding 6.521; the three preceding remarks are all about scientific questions *that can be put into words*, and immediately following 6.521 Wittgenstein asserts, "There are, indeed, things that cannot be put into words. They *make themselves manifest*. They are what is mystical." (6.522) See Anscombe's discussion of this remark. (1971, 169-171)

[109] In discussion with Wiasmann, Wittgenstein said, "Schlick says that theological ethics contains two conceptions of the essence of the Good. According to the more superficial interpretation, the Good is good because God wills it; according to the deeper interpretation, God wills the Good because it is good. I think that the first conception is the deeper one: Good is what God orders. For this cuts of the path to any and every explanation 'why' it is good." (Waismann 1965, 15)

The next question, of course, is this: what is it to see the world as a totality, independently of existing states of affairs? "To view the world sub specie aeterni is to view it as a whole – a limited whole." (6.45) Change is in time: all of the contingent states of affairs which make up the world change as time changes. To abstract from these changes is to abstract from temporality. Thus Wittgenstein asks, "is it possible for one so to live that life stops being problematic? That one is *living* in eternity and not in time?" (NB 74) Elaborating on this theme, Wittgenstein addresses what might be called *the* problem of life, among all others: death. "Death is not an event in life: we do not live to experience death. If we take eternity to mean not infinite temporal duration but timelessness, then eternal life belongs to those who live in the present." (6.4311)[110] This is to say that one lives without *hope, fear or want*. These are all signs that our will is not in agreement with the world, that it is unsatisfied. If one accepts a timeless life – which is the world viewed as a totality independent of states of affairs – then one is happy. For this reason suicide is "the elementary sin" (NB 91): to accept life is to do right, to commit suicide is to reject it.

In "A Lecture on Ethics" Wittgenstein gives two experiences that are characteristic of viewing the world in this way. The first, he says, is when "I wonder at the existence of the world. And I am then inclined to use such phrases as 'how extraordinary that anything should exist' or 'how extraordinary that the world should exist.'" (LE 41) The second is "the experience of feeling *absolutely* safe. I mean the state of mind in which one is inclined to say, 'I am safe, nothing can injure me whatever happens." (*Loc. Cit.*)[111] The rest of the lecture is concerned with establishing that these are bits of nonsense, and this brings us back to the central question of the *Tractatus*: how can one express something that is nonsensical?

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[110] See also NB 74: "Only he who lives not in time but in the present is happy."
[111] Wittgenstein also connects these feelings to religion, writing "the first of them is, I believe, exactly what people were referring to when they said that God had created the world; and the experience of absolute safety has been described by saying that we feel safe in the hands of God." (LE 42)

Because the nonsensicality of these remarks "is their very essence," to see that they are nonsensical is to understand them.

Wittgenstein's simplest answer is this: *art* can express ethics. 6.421 states, "Ethics and aesthetics are one and the same." The *Notebooks* give a more precise account of this connection: "Art is a kind of expression. Good art is complete expression. The work of art is the object seen *sub specie aeternitatis*; and the good life is the world seen *sub specie aeternitatis*. This is the connection between art and ethics." (NB 83) Wittgenstein sees art as presenting an object "with the whole world as background" (*Loc. Cit.*), and in so doing it presents it independently of all contingency. In this way art connects with *logic*: "Each thing modifies the whole logical world, the whole of logical space, so to speak. (The thought forces itself upon one): The thing seen *sub specie aeternitatis* is the thing seen together with the whole of logical space." (*Loc. Cit.*) Throughout I have stressed that Wittgenstein is simultaneously an atomist and a holist: propositions *say* something about a state of affairs as they are independent from all others, but they *show* the necessary logical connections between these propositions. The force of each proposition "reaches through the whole of logical space." (3.42) *What is said is temporal; what is shown is eternal.* Art expresses only the eternal: the object seen *only* as a part of the limited whole and independently of its contingent connections to things.

Returning to the astonishing fact "*that* the world exists", he writes, "Aesthetically, the miracle is that the world exists. That there is what there is. Is it the essence of the artistic way of looking at things, that it looks at the world with a happy eye? Life is grave, art is gay." (NB 86)[112] To live the good life – the *happy* and *eternal* life – is to see things as the work

[112] The editors of the *Notebooks* connect the concluding sentence of this remark to a quote from Schiller.

of art sees things: as beautiful ("beautiful *is* what makes happy"). (*Loc. Cit.*)[113] The world and the will are in a necessary connection, in that without the will there is no world; but there is nonetheless the lack of a connection – the contingency – in that the world is independent of our will.[114] Both he who leads an ethical life and the expressive work of art concern themselves only with the necessary connection, and renounce all contingency. The world is all that is the case, the totality of facts. To be concerned with the problem of life is to live within those facts – "in the midst of them, as it were." (NB 83) To see the world sub specie aeterni is to view the world as the totality, from "outside." It is this that is mystical (6.45) and makes itself manifest. (6.522)

Of course the question still nags: perhaps a work of art can express the unsayable, but what about Wittgenstein's *statements* in the *Tractatus*?

3. Silence

This concluding section will discuss Wittgenstein's final three remarks; it is in them that he tells us how to view his book as a whole. The first is 6.53:

> The correct method in philosophy would really be the following: to say nothing except what can be said, i.e. propositions of natural science – i.e. something that has nothing to do with philosophy – and then, whenever someone else wanted to say something metaphysical, to demonstrate to him that he had failed to give a meaning to certain signs in his propositions. Although it would not be satisfying to the other person – he would not have the feeling that we were teaching him philosophy – this method would be the only strictly correct one.

The first important thing to note is that, in the *Tractatus*, Wittgenstein definitely does *not* adhere to this "strictly correct" method. What the *Tractatus* seems to be doing is paving the

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[113] Anscombe sums up the point well: "The world thought of, not as how things are, but as *however* they are – seen as a whole – is the matter of logic; thought of as my life, it is the matter of ethics; thought of as an object of contemplation, the matter of aesthetics: all these, then, are transcendental." (Anscombe 1971, 172-173)
[114] Cf 2.0122: "Things are independent in so far as they can occur in all *possible* situations, but this form of independence is a form of connection with states of affairs, a form of dependence.)"

way for such a method to be possible. Compare this passage with 4.112: "Philosophy aims at the logical clarification of thoughts. Philosophy is not a body of doctrine but an activity." Wittgenstein has not given us propositions; he has given us the necessary preconditions for propositions. In this sense, Wittgenstein's presentation of the general form of a proposition is the completion of his philosophical project. Now that we know how propositions picture the world, viz. by being a truth function of elementary propositions, we can point out to philosophers that their sentences fail to satisfy this condition.

Wittgenstein is not giving a positive method of philosophy. He is critiquing philosophy; or better, he is giving an argument that philosophy cannot accomplish anything of significance. He gives a logical characterization of how language works, and in so doing he has shown how to divide assertions into the legitimate (which are unimportant) and the nonsensical – the assertions of old philosophers – which the "strict" philosopher "demonstrates" to be nonsensical. On neither side do we obtain anything of significance; we are left with what he had to begin with: the propositions of natural science. To quote the Preface, we found, first, "the final solution of the problems" in the general form of a proposition, but second, "how little is achieved when these problems are solved."

In 6.53 Wittgenstein tells us how to point out to philosophers that they are speaking nonsense; in 6.54 he points this out to himself:

> My propositions serve as elucidations in the following way: anyone who understands me eventually recognizes them as nonsensical, when he has climbed out through them, on them, over them. (He must, so to speak, throw away the ladder after he has climbed up it.)
> He must transcend these propositions, and then he will see the world aright.

What has become known as the "standard" reading[115] of this passage sees it as making too strong of a claim. This is common to most of the introductory books on the *Tractatus* (i.e. Anscome, Mounce, and Fogelin), and the most direct statement of it comes in Black, who argues that Wittgenstein is too quick to equate nonsense with gibberish, especially since much of the *Tractatus* is devoted to demonstrating how one can show things which cannot be said.

On Blacks' view, the nonsensical status of Wittgenstein's remarks becomes a subsidiary point. A reader of the *Tractatus* is still left with the philosophical doctrines expounded therein, just with the caveat that one must recognize that these doctrines can only be shown. Wittgenstein is a philosopher just like any other (even if he didn't think so); what is unique to him is his claim that one must *express* one's philosophy in a different way. The vast majority of the literature on the *Tractatus* implicitly agrees with this position in simply not dealing with 6.54 and addressing Wittgenstein's his philosophy directly.

But it seems clear that if one wants to understand the work itself, another path must be taken; of ethics, at least, Wittgenstein explicitly remarked that nonsensicality was *its very essence*. (LE 44) The standard reading sees the nonsensical status of the *Tractatus* almost as a setback, as an unfortunate snag which requires that philosophers find a new way to philosophize. As a response, recent scholarship has propounded a "new Wittgenstein." My interpretation of 6.54 and 7 takes their work as a starting point, so I will give a brief account of the most prominent "new" work on the *Tractatus:* that of James Conant and Cora Diamond.

The core of their interpretation is that the propositions of the *Tractatus* are, as Wittgenstein says in the preface, "*simply* nonsense." Therefore one cannot literally

[115] This is, of course, a wide generalization; the only thing common to "standard" interpreters is that they read Wittgenstein as showing a *philosophy*.

understand the *Tractatus*. Rather, one understands *Wittgenstein* in realizing that the book is nonsense. Conant gives a powerful argument in "Elucidation and Nonsense in Frege and Early Wittgenstein" that the division (explicit in Black) between *substantial* and *austere* nonsense is not present in the *Tractatus*. Indeed, he sees the *Tractatus* first and foremost as an attempt to *critique* this division as it occurs in Frege. (Conant 2000, 179-195)

Unfortunately, assigning this position to Wittgenstein leaves him in utter and complete incoherence. But not only in the sense in which they would *like* him to be incoherent (as writing austere nonsense), but also in the sense that there is surely at least *some* difference between "the world is all that is the case" and "a;laksjdf;ioadu." And if we are to hold that Wittgenstein is doing *anything* with the book, then there must be some explanation of how (a writer of) austere nonsense, but not gibberish, is able to do something. The onus is thus on Conant and Diamond to explain this difference, as well as why we are at least under the illusion that we can understand the book, but are under no such illusion with pure gibberish.

Both of them obviously recognize the problem, and they offer similar solutions. Diamond begins with the astute observation that, if "p" is nonsense, one can't even be under the illusion *that* p, or believe *that* p. (Diamond 2000, 157) Any such situation is to have a propositional attitude; but one can't have a propositional attitude to a non-proposition. (She might also have noted Wittgenstein's brief account of the propositional attitudes at 5.541-5.542). How, then, could the *Tractatus* do anything? Diamond writes,

> My point then is that the *Tractatus*, in its understanding of itself as addressed to those who are in the grip of philosophical nonsense, and in its understanding of the kind of demands it makes on its readers, supposes a kind of imaginative activity, *an exercise of the capacity to enter into the taking of nonsense for sense*, of the capacity to share imaginatively the inclination that one is thinking something in it. (*Ibid*, 157-158; emphasis mine)

The italicized remark is the core of her account: one can "understand" nonsense only by *imagining* that it is sense. The *Tractatus* works because its intended readers are precisely those who are imagining philosophical propositions to have sense. The purpose of the *Tractatus* is to purge them of this illusory imaginative activity. Conant 's view is similar:

> Thus the elucidatory strategy of the *Tractatus* depends on the reader's provisionally taking himself to be participating in the traditional philosophical activity of establishing theses… but it only succeeds if the reader fully comes to understand… that the work results not in *Philosophische Sätze* [philosophical propositions] but in *das Klarwerden von Sätzen.* [clarification of propositions] And the attainment of this recognition depends on the reader's actually undergoing a certain *experience*… the reader's experience of having his illusion of sense… dissipate through its becoming clear to him that (what he took to be) the *philosophische Sätze* of the work are *Unsinn.* [nonsense] (Conant 2000, 196-7)

The "new *Tractatus*" is an attempt to get philosophers who are under the illusion that they are doing something to realize that they are doing nothing.

Unfortunately, neither of them have touched the difficulty that they set out to solve. Diamond tries to get around her propositional attitude argument by saying that we imagine, not that "p" is *true*, but that it *makes sense*. But just *try* to imagine that "twiddle twoodle twaddle" makes sense. Perhaps her way of phrasing the solution tries to get around this: we don't imagine *that* nonsense makes sense, we "enter into the imaginative *activity*" according to which nonsense makes sense. But this doesn't fare any better – how can you enter into an imaginative activity in which you imagine something that is unimaginable? The same applies to Conant: how can one be under the illusion that nonsense makes sense?

The very arguments that they put forward to critique the standard reading cause problems for their own reading. This is a systematic mistake, and it is crystallized in the following passage from Conant:

> So on the reading of the *Tractatus* suggested here, what is to happen, if the book succeeds in its aim, is *not* that I (1) succeed in conceiving of an extraordinary possibility (illogical thought), (2) judge "it" to be impossible, (3) conclude that the

> truth of this judgment cannot be accommodated within (the logical structure of) language because it is about (the logical structure of) language and (4) go on to communicate (under the guise of only "showing" and not "saying" "it") what it is that cannot be said. Rather, what is to happen is that I am lured up all four of these rungs of the ladder and then: (5) throw the *entire* ladder (all four of the previous rungs) away. (*Ibid*, 196)

Again, how do we climb up a ladder that doesn't exist? The problem with Conant's and Diamond's reading is this: they hope to add (5) to the standard reading by *rejecting* the standard reading, which is expressed in (1)-(4). But (5) can only result as a consequence of (1)-(4); if we eliminate the possibility of (1)-(4) then we eliminate the possibility of (5).

There are some passages in the *Tractatus* which find absolutely no place in the new reading. In the Preface, Wittgenstein says that thoughts are expressed in the book, and furthermore, that the *truth* of them is unassailable and definitive. A remark about solipsism in 5.62 states *precisely* the opposite of their view: "what the solipsist *means* is quite correct; only it cannot be *said*, but makes itself manifest." Diamond and Conant could try to accommodate these by arguing that they are part of the process, and that they must eventually be rejected. But this move is the most serious problem with the new reading, for if we really do reject everything in the *Tractatus*, on what grounds are we making this rejection? The "pseudo-philosophical" task of the *Tractatus* is to draw a distinction between sense and nonsense, but without the pseudo-philosophical account of this distinction we no longer have any reason to reject anything as nonsense. We are led strait into a paradox: the *Tractatus* tells us that it is nonsensical iff it does not tell us anything, *a fortiori* iff it does not tell us that it is nonsensical.

Where Conant and Diamond are correct is in stressing that the *Tractatus* must be read as offering a *process* that the reader must go through.[116] Where they are wrong is in supposing that at the end of this process there is absolutely nothing left. But we can't simply resort to Black's "standard" reading, either. Even if we do allow a broader notion of nonsense than the "austere" version, it would be a serious mistake to see Wittgenstein as propounding a philosophical doctrine. On my view, what we must reject at the end of the book is that what we have been doing is *philosophy*, insofar as philosophy is thought of as a series of statements. We are left with a critique of philosophy, just as Diamond and Conant argue, but that is not the end of the matter: the conclusion of the book also contains an affirmation of the mystical.

What we need is a broader notion of nonsense. And, in fact, it seems that such a notion of nonsense is required independently of any consideration of the *Tractatus*. In slightly different terminology, Paul Benacerraf explains my point in relation to what he sees as ungrammatical identity statements: "they are not totally senseless, for we grasp enough of their sense to explain why they are senseless." (Benacerraf 1965, 64) Nobody calls a chair nonsense, nor do they ask whether a skip or a jump has any sense to it. It would even seem strange to say that "a;lkdfjaoisdvjhaodi" is a bit of nonsense – it just isn't anything except a bunch of symbols. The term "nonsense" is reserved for cases which *try* to have sense; only when a linguistic construction is somehow related to sense can it be nonsensical. This is a fascinating philosophical problem in its own right, and one which I couldn't hope to solve here. But Wittgenstein gives us a definition of nonsense, and that is our present concern.

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[116] This is corroborated by the remark cited in the introduction to this thesis, to the effect that Wittgenstein believed that only somebody who had these thoughts independently and *then* found his book would understand him. (LCK 78)

Nonsense is a series of signs in a combination to which we have given no meaning. For meaningful propositions we have laid down, via convention, rules of projection in order that they can picture states of affairs; there are no such rules for a nonsensical string. But beyond this we are given no characterization of nonsense in the *Tractatus*. This is a primarily *negative* criterion; it doesn't say anything about what nonsense *can* do. All it says is that nonsense *can't* picture states of affairs. I thus propose that we look at things another way; instead of saying that the *Tractatus* is nonsensical, and then asking what a nonsensical work can do, we should ask what the *Tractatus* does, and then infer that Wittgenstein believes that nonsense can do such things. For it is clear that nonsense must be able to do *something*, if it couldn't it wouldn't be nonsense, but rather just a fact.

What the *Tractatus* has done, up until the final three remarks, is to sketch what appears to be a philosophical system. What is particular to this system, in relation to all others, is that to understand it is to see that it is superfluous. (This is all still ignoring the final three remarks.) His metaphysics, his philosophy of language, and his philosophy of logic are all supposed to be captured in the general form of a proposition. This logical construction gives us the necessary preconditions for the existence of the world and language. To see that his "philosophical" claims are valid is to see that they are displayed in logic itself: the great mirror. And logical propositions are not nonsensical, but *senseless*. So regardless of what we end up deciding about the status of the meta-logical statements in the *Tractatus*, we are still left with tautology and contradiction, and also with what they *show*.

What we see from tautology and contradiction is that the world is orderly. But even this is something which we try to *say* about what logic shows; Wittgenstein writes in the *Notebooks*, "There cannot be an orderly or a disorderly world, so that one could say that our world is orderly. In every possible world there is an order even if it is a complicated one,

just as in space too there are not orderly and disorderly distributions of points, but every distribution of points is orderly." (NB 83) The same point follows from the impossibility of illogical thought; we have to give up the idea that we have *said* anything about the logical structure of language – every language, if it is a language, has a logical structure. But it makes no sense to say this because it couldn't not be the case; it is shown through the existence of logic. The difficulty is the same one which has been plaguing us all along: *something* is shown by logic but every attempt to *say* what that something is falls into nonsense.

Let us return to "A Lecture on Ethics", and Wittgenstein's remark about "wondering at the existence of the world." He says that this "is exactly what people were referring to when they said that God had created the world." (LE 42) This demonstrates, he thinks, that "in ethical and religious language we seem constantly to be using similes. But a simile must be the simile for *something*. He then presses further, trying to express the simile in more and more ways: "I will now describe the experience of wondering at the existence of the world by saying: it is the experience of seeing the world as a miracle." (*Loc. Cit.*) Again: "the right expression in language for the miracle of the existence of the world, though it is not any proposition *in* language, is the existence of language itself." (LE 44) This does seem to come even closer: for the existence of language presupposes some order of the world, and it presupposes the world as a totality situated in logical space: that is, it presupposes the existence of a limited whole. But even this, of course, is nonsense, for the *existence* of language doesn't say anything at all.

What we see in the process of attempting to explain the "simile" is an attempt to turn nonsense into sense. This is roughly how Diamond sees the *Tractatus* as proceeding,

and rightly so. But we can't view nonsense as nothing; Wittgenstein's point is simply that it can't be *turned into* sense. Let us look at 6.54 again:

> My propositions serve as elucidations in the following way: anyone who understands me eventually recognizes them as nonsensical, when he has climbed out through them, on them, over them. (He must, so to speak, throw away the ladder after he has climbed up it.)
> He must transcend these propositions, and then he will see the world aright.

In recognizing that his propositions are nonsensical we do not recognize that he hasn't done anything in the *Tractatus* at all. We realize that we can no longer accept the pseudo-philosophical remarks about facts, states of affairs, pictures, substance, etc… as philosophical remarks. They are nonsensical stabs at expressing wonder at the existence of the world, just as is the remark "God created the world." We can't break the point down any further. What Wittgenstein does in the *Tractatus* is break it down as clearly as possible and then show his own failure. While we can try to press our "religious or ethical" similes further, there is no point in doing so. No matter how far we go we are still left with nonsense. We must transcend this urge.

In the conclusion of the Lecture, he says,

> This running against the walls of our cage is perfectly, absolutely hopeless. Ethics so far as it springs from the desire to say something about the ultimate meaning of life, the absolute good, the absolute valuable, can be no science. What it says does not add to our knowledge in any sense. But it is a document of a tendency in the human mind which I personally cannot help respecting deeply and I would not for my life ridicule it. (LE 44)

This is not to say that Wittgenstein respects *all* attempts to thrash against the walls of our cage; "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." (in Engelmann 1967, 143) What Wittgenstein respects is ethical and religious language *which recognizes itself as such*; the attempt to make it philosophical is the attempt to turn nonsense into sense. As Wittgenstein

put it in a discussion with Waismann, "The thrust against the limits of language is *ethics*. I regard it as very important to put an end to all the chatter about ethics – whether there is knowledge in ethics, whether there are values, whether the Good can be defined, etc…" (Waismann 1965, 13) It is the chatter *about* ethics with which Wittgenstein takes issue, not ethics itself.

We cannot speak about things which make themselves manifest. We are told in the awesomely conclusive final remark of the book that we must therefore pass them over in silence. It would be misguided to take this remark as an imperative. One might ask, á la 6.42, "and what if I do not?" We can't *not* remain silent about the ineffable. What we can do is either try to say something about it, or we can try to show something about it. To take the former path is to philosophize, and Wittgenstein tries to show that it is utterly hopeless. To take the latter path is to construct a work of art. In his discussions with the Vienna Circle, Wittgenstein asked, "What is valuable in a Beethoven Sonata?" The sequence of sounds? Beethoven's feelings? A mental state induced by the music? In response to all of these Wittgenstein says, "Whatever explanation one gives me I would reject it, indeed, not because the explanation is false, but because it is an *explanation*. Whenever someone gives me a *theory* I would say: "No! No! I don't care about that! Even if the theory were true I wouldn't care about it. It still wouldn't be what I'm looking for." (Wittgenstein 1984b, 116; translation mine) The *Tractatus* begins by presenting what appears to be a philosophical system, but ends up showing us that such a system is impossible. It becomes, in its conclusion, a creative work of art which documents the collapse of philosophy into silence and mysticism.

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