The Nature of Relations and the Metaphysical Dilemma in Wittgenstein's *Tractatus Logico-Philosophicus*

by
Lora Cindy Thompson

September 2003

Abstract

This thesis is concerned with an analysis of Ludwig Wittgenstein's *Tractatus Logico-Philosophicus* that centers around the dilemma in which Wittgenstein finds himself in expressing the belief that the propositions of his work, while they are nonsensical according to their own standards, remain informative. The contention is that whether the text is successful in upholding Wittgenstein's claim relies deeply on the account that it gives of relations, in particular the pictorial relation and the relations that pertain amongst objects in states of affairs. It will be argued that the *Tractatus* sets itself the requirement that if its propositions are to be nonsensical yet informative, then they must display the general form of a proposition that can have 'sense.' In turn, if any proposition is to be able to have 'sense,' then the pictorial relation must serve a dual purpose in holding the situation represented in the sense of a proposition distinct from the reality it depicts, while acting as a means of comparison such that the truth or falsity of a proposition can be determined. It will then be argued that if the pictorial relation is to be able to function in this way, then propositions must be able to signify exactly which relations pertain in the situation depicted by its sense. In conclusion a case will be made that the *Tractatus* is unable to meet the demands that it places on itself, for the work does not give an account by which elementary propositions, to which all propositions are analyzable, can signify the specific relations which pertain in the states of affairs they represent.

Table of Contents

Introduction

This thesis is concerned with an analysis of Ludwig Wittgenstein's *Tractatus Logico-Philosophicus* that centers around the dilemma in which Wittgenstein finds himself in expressing the belief that the propositions of his work, while they are nonsensical according to their own standards, remain informative. The contention is that whether the text is successful in upholding Wittgenstein's claim relies deeply on the account that it gives of relations, in particular the pictorial relation and the relations that pertain amongst objects in states of affairs. It will be argued that the *Tractatus* sets itself the requirement that if its propositions are to be nonsensical yet informative, then they must display the general form of a proposition that can have 'sense.' In turn, if any proposition is to be able to have 'sense,' then the pictorial relation must serve a dual purpose in holding the situation represented in the sense of a proposition distinct from the reality it depicts, while acting as a means of comparison such that the truth or falsity of a proposition can be determined. It will then be argued that if the pictorial relation is to be able to function in this way, then propositions must be able to signify exactly which relations pertain in the situation depicted by its sense. In conclusion a case will be made that the *Tractatus* is unable to meet the demands that it places on itself, for the work does not give an account by which elementary propositions, to which all propositions are analyzable, can signify the specific relations which pertain in the states of affairs they represent.

It is my hope that this thesis will accomplish two goals. The first is to outline the demands that the *Tractatus* places on itself, and subsequently to show how it does not answer to these demands. The second objective is to offer a unique and unified reading of the text. It must be noted that this analysis is concerned solely with the text as it appears in the *Tractatus*, this fact accounting for the apparent paucity of reference to the work of other authors on the subject.

The body of this thesis is divided into three main parts to address the first aim of this thesis. Part one, comprised of chapters one, two and three is concerned with demonstrating that the pictorial relation plays a central role in the *Tractatus* in allowing for the propositions contained within the work to remain informative, while they are nonsensical according to their own standards. To this end, chapter one will introduce, in context, Wittgenstein's notions of picturing and of 'sense' as that which a picture depicts. Chapter two will then introduce the pictorial relation, indicating that it plays an integral role in defining a picture as that which can represent only a possibility in logical space, such that all pictures have the possibility of representing falsely. Chapter three will

characterize 'nonsense,' while presenting Wittgenstein's views on his own propositions as nonsensical, though of the same general form as sensical propositions. The purpose of part two of this thesis, consisting of chapters four and five, is to draw attention to the requirements that must be met by the *Tractatus* if the pictorial relation is to act as a means of comparison between a proposition and reality, such that the truth or falsity of that proposition is determinable. Chapter four will discuss the requirement for the determinacy of 'sense', and chapter five the demand that a proposition represent no more than a single sense. Chapter five will also present the conditions under which its demand can be met, namely that a proposition must signify exactly which relations pertain in the situation it represents through its sense. Finally, part three, chapters six and seven, will address the implications that the demand made in chapter five has for the *Tractatus*. Chapter six will argue that the work is unable to answer to this demand as a result of its inability to provide an explanation of how the specific relations pertaining in a state of affairs can be signified in an elementary proposition. Chapter seven will indicate that the demand made in chapter five renders elementary propositions to be non-independent, thereby disallowing that logical necessity can be displayed in the way that the tractarian notion of independent elementary propositions allowed.

With regard to the second objective of this thesis, chapters five and seven will play the most significant role. Chapter five will present a unique reading of logical multiplicity, which I feel allows for a more unified reading of the text, by disassociating the conception of logical multiplicity from the debate over the status of objects. Chapter seven concludes that this unique reading calls for a different mode of description of the world than the one given by Wittgenstein to be used in the *Tractatus*. It will be revealed that it is both possible and useful, if not necessary, given the demands the text places on itself, to describe the world in terms of degree.

Part 1

It will be fruitful, before my analysis of the text begins, to discuss briefly to what end Wittgenstein felt that his work, the *Tractatus Logico-Philosophicus* comes. The reader of this work can so easily become embroiled in the details of the various propositions set out, that it is important to keep always in mind what, according to Wittgenstein, the book is supposed to achieve. He stated exactly what he felt to be the purpose of the *Tractatus* in the preface.

> ...the aim of this book is to draw a limit to thought, or rather—not to thought, but to the expression of thoughts: for in order to be able to draw a limit to thought, we should have to find both sides of the limit thinkable (ie: we should have to be able to think what cannot be thought). It will therefore only be in language that the limit can be drawn, and what lies on the other side of the limit will simply be non-sense. [1]

It appears that the key aim of the *Tractatus* is to make known that there is a limit between 'sense' and 'nonsense' in language. An assessment of this limit will guide the exposition of Wittgenstein's thoughts presented in the first part of this thesis. Chapter one will characterize this limit which, in being placed in language as opposed to thought is a perceptible boundary to what can be said in any language. The second chapter will handle the tractarian answer to the problem of how there can be a limit to language that is perceptible and yet cannot be characterized in any language. The final chapter of part one will discuss that which lay on the other side of the boundary to what can be said, which includes the propositions put forth in the *Tractatus* itself.

I hope to demonstrate in the first part of this thesis that, if, as Wittgenstein would like, the propositions of the *Tractatus* are to remain informative while they are nonsensical by their own standards, then the pictorial relation plays a crucial role.

---

[1] See Wittgenstein (1961) page 3.

Chapter 1

The first chapter of this section is concerned with a close investigation of Wittgenstein's intention in stating, as he does in the preface, that a limit must be drawn, not to thought, but rather to language, the expression of thought. It will explore Wittgenstein's notions of thoughts and language, or the expression of thoughts. First it will be determined how thoughts and the expression of thoughts are considered distinct, while also establishing that the expression of thought is, in the *Tractatus*, in some language. Next, Wittgenstein's concept of thoughts as logical pictures will be investigated, establishing how and why pictures represent the world. Here will be presented Wittgenstein's conception of the world, and therefore, pictures of the world, as logical. Subsequently, Wittgenstein's notion of 'sense' will be explored as that which thoughts and pictures represent. Lastly, it will be asserted that the significance of the limit between 'sense' and 'nonsense' being placed in language rather than in thoughts is that the limit becomes perceptible to the senses and acts as a boundary to what can be said in any language.

1.1 The thought-language distinction

This section is concerned with the distinction made in the *Tractatus* between thought and the expression of thought. It will show that the expression of thought is in language, and can take many forms, each valid so long as it is translatable into all other possible forms.

As is portrayed in the above passage taken from the preface to the *Tractatus*, Wittgenstein seemed to draw a distinction between thoughts and the expression thereof, in saying that there is a limit not to thoughts, but rather to the expression of thoughts. The following sentence states that the limit must, therefore, be in language, thereby indicating that language is the means of the expression of thought. That Wittgenstein intended this understanding of the relation of thought to language is confirmed by the proposition, found later in the *Tractatus*, 3.1.

3.1   **In a proposition a thought finds an expression that can be perceived by the senses.**

7

Propositions are commonly conceived of as spoken or written statements in language. Thus, it seems that 3.1 can be understood to say that it is in language that thoughts can be expressed in a perceivable manner. However, Wittgenstein's notion of language, as the expression of thought, requires a closer investigation. In representing a thought, it is possible to use more routes than simply speech or writing. It would seem that a drawing would also qualify as an expression of a thought, and therefore, as a proposition. This is also in accordance with the views of the *Tractatus*, as 4.01 indicates, that for definition as such, a proposition must simply picture reality in some perceptible fashion.

4.01   A proposition is a picture of reality. A proposition is a model of reality as we imagine it.

While it does not seem apparent that there must be a relation between a drawing and spoken or written language, Wittgenstein does, as a matter of fact, indicate that there is, and must be, a direct relation. To begin with, it is clearly pointed out that there are often several means of representing the same thing. Take, for example, the different modes of musical representation that Wittgenstein discusses in the following proposition.

4.0141   There is a general rule by means of which the musician can obtain the symphony from the score, and which makes it possible to derive the symphony from the groove on the gramophone record, and, using the first rule, to derive the score again. That is what constitutes the inner similarity between these things which seem to be constructed in such entirely different ways. And that rule is the law of projection which projects the symphony into the language of musical notation. It is the rule for translating this language into the language of gramophone records.

What this proposition suggests is that the pattern of bumps and dips in the groove of the gramophone record represents the same piece of music as the notes written on paper in the score. Further, one can potentially always translate from one mode of representation to the other; from the score to the bumps and dips of the gramophone record, from each of these to the music heard when the symphony is played, and vice versa. What is not clearly asserted, is that one *must* be able to translate between these modes of representation. What is more, one must be able to translate between one mode of representation and *any* other one. Just as one must be able to write

8

the score from the symphony as it is played, one must be able to write the symphony out in words from the score, the notes written in their word form. This does not seem to be a misinterpretation of this proposition, as Wittgenstein stated the necessity for translatability earlier in the *Tractatus*.

3.343   **Definitions are rules for translating from one language into another. Any correct sign-language must be translatable into any other in accordance with such rules: it is *this* that they all have in common.**

While the concept of definition is not at present important, what is important to understand from this proposition is that rules exist for translation between modes of representation. More importantly, these rules exist necessarily. Any correct sign-language, in order to exist as a mode of representation must be translatable, these rules of translation must apply to it. This serves to show, in reference to the previous discussion, that there is a necessary relation between a drawn picture and that same picture described in words. Each must be translatable into the other. In this light, language as the expression of thought can take many forms, each valid so long as it is translatable into all other possible forms. Thus, in which form one conceives of the expression of thought does not influence the relation between thought and language, that language is a perceptible expression of thought.

1.2 Thoughts as logical pictures of the world

The previous section revealed that, for the purpose of the *Tractatus*, language can take many forms in acting as the perceptible expression of thoughts. This section will explain that it is logical pictures which are thoughts, and which can come to be expressed in a perceptible fashion in language. The ensuing discussion will show that these pictures are logical because they are representations of the world, which Wittgenstein conceives of as necessarily logical, and share in this form.

Wittgenstein makes clear in the proposition 3 of the *Tractatus* that it is a property of logical pictures to exist as thoughts.

3   **A logical picture of facts is a thought.**

Because logical pictures have the property of being thoughts, it is these logical pictures
that can come to be expressed in language. A bit of enlightenment is necessary, then, as
to the nature of a logical picture. Wittgenstein addressed the issue of these logical
pictures in the following.

2.19   **Logical pictures can depict the world.**

This proposition introduces the very important notion in the *Tractatus*, that there is a close
relation between logic and the world. It is a notion which must be explored. The proposition
2.19 seems to assert that it is the privileged status of logical pictures to be able to represent the
world. If this is the case, one might say that the world must, therefore, also be logical. Further, it
would seem that the world is necessarily logical, because otherwise, the possibility might exist
that illogical pictures could also represent the world. Wittgenstein denies the possibility that
illogical pictures exist, for he states that every picture must be logical.

2.182   **Every picture is *at the same time* a logical one. (On the other hand, not every picture is, for
          example, a spatial one.)**

It seems that being logical is a prerequisite for something to be a picture. 2.182 points out that
there can be pictures of other forms, for example of spatial, and perhaps also temporal form.
Both of these other forms, and in fact, any other imaginable forms, are also forms of the world.
As each of these other forms of pictures is also logical, it seems that the world is, in
Wittgenstein's eyes, necessarily logical. This idea is confirmed by Wittgenstein when he states:

6.13   **Logic is not a body of doctrine, but a mirror-image of the world. Logic is transcendental.**

It is in this way that the world can be said to be necessarily logical; logic is a reflection of the world, it is what we can understand of the world. Understanding the world means understanding the logic of the world. It is not the case that without logic one would not comprehend the world, rather without the world, it would not be possible to understand logic. This will make itself more clear only in later discussion. For now, it will be enough to see where in the world this logic lies. It must now be asked what is it of the world that is reflected in logic. Proposition 6.3 is revealing on this matter.

6.3   **The exploration of logic means the exploration of *everything that is subject to law*. And outside logic everything is accidental.**

What is reflected of the world is that it is subject to laws. This would have to mean that the world, at least in some way, is non-accidental. This is an idea which will occur again in the evaluation of the *Tractatus*. A further explanation will present itself in the discussion of objects, to come later. The conception of the world as logical is highly important to the *Tractatus*, especially so for how one is to understand pictures in the context of this work. It has already been stated that pictures are necessarily logical. The view of logic as a reflection of the world that has been given would require, then, that pictures must be of the world. The idea that the world is the essential subject matter of pictures is revealed in proposition 2.12.

2.12   **A picture is a model of reality.**

While it seems intuitive that reality, as it is referred to here, and the world are equivalent, this may not be the understanding that Wittgenstein intended. The most useful proposition to refer to in order to work out the similarity or dissimilarity between reality and the world is 2.063.

2.063   **The sum-total of reality is the world.**

11

Reality, it appears, amounts to the world. The world is, as this proposition asserts, reality in its entirety. One might say, then, that reality consists, somehow, of smaller portions of the world, not the world as a whole. It is obvious that reality and the world are closely similar, enough so that one can consider the *Tractatus* proposition 2.12 to say that a picture is a model of the world. However, Wittgenstein clearly draws a distinction between reality and the world. They are not equivalent. Why this is, one will only be able to say after a broader study of the *Tractatus*. One can, at this point, come away with the understanding that a picture is a model of a portion of the world.

The question now stands as to *why* a picture can represent reality. Just as there are innumerable different sign-languages, there must also be different types of pictures. Indeed, it has already been noted that there can be spatial and possibly also temporal pictures. Different sign-languages, it has been determined, are considered correct, and thereby able to represent reality, if they are translatable into any other correct sign-language. It must be asked what the requirements are such that different types of pictures can represent reality. First, however, it must be made explicit what up to now has only been implied about pictures. Namely,

2.173   **A picture represents its subject from a position outside it. (Its standpoint is its representational form.) That is why a picture represents its subject correctly or incorrectly.**

Pictures are not a part of the portion of the world that they picture. Pictures are independent and distinct from what they picture, reality or a portion of the world. A picture and that which it pictures must exist separately of one another. Underlying this assertion is the view that reality exists independent of its viewer. Further, the sum total of reality, the world, exists independent of any viewer. It is only in this way that one is able to depict the world correctly or incorrectly. If reality were dependent upon its observer, then it would seem impossible to depict this reality incorrectly. In the case that the viewer and the reality that he sees are not independent of one another, the viewer cannot be wrong in his depiction of reality, for the reality does not exist except relative to his perception of it.

Given that the world exists separately from any observer, it must be determined what allows any type of picture to represent this independent reality. Wittgenstein hints at the answer in 2.161.

2.161 **There must be something identical in a picture and what it depicts, to enable one to be a picture of the other at all.**

It has already been suggested that the world, and, therefore, the pictures that represent it are logical by nature. It is exactly this logical nature that must be identical between a picture and that portion of the world that it pictures. The following proposition describes just this.

2.18 **What any picture, of whatever form, must have in common with reality, in order to be able to depict it – correctly or incorrectly – in any way at all, is logical form, i.e. the form of reality.**

One must note in this proposition that, while indicating that what is identical in pictures and what is pictured is that they are both logical, this is done by reference to a form, logical form. Clearly the concept of a form is significant to Wittgenstein and, therefore, the *Tractatus*. In order to see the significance that form has for this work, one must see how it is defined. Wittgenstein defines form as follows.

2.033 **Form is the possibility of structure.**

According to this statement, form is not a definite, or specific structure, but rather the possibility of having a structure. This suggests that there must be no strict formation that either a picture or the pictured reality must take on in order for the former to represent the latter. It seems that each must rather be able to conform to the same structure. This seems to mirror the idea, discussed previously, that there is no specific character that a sign-language must take in order to be correct; it must simply contain the possibility of being translated into any other sign-language. To better understand what this logical form, or the possibility of logical structure is, one might reword the proposition 6.3, replacing exploration with form. The form of logic means the form of *everything*

that is subject to law. In other words, if something does not have the possibility of being governed by a law, it cannot be logical. In the context of picturing, if something does not have the possibility of being subject to law, it does not have the possibility of being able to represent that which is subject to law, the world. The concept of a form will be of great importance to the *Tractatus*, and will be discussed and further explained at a later point. Wittgenstein exemplifies the idea that reality and a picture thereof must be logical, must be able to be subject to laws, in the following proposition.

3.032   **It is as impossible to represent in language anything that 'contradicts logic' as it is in geometry to represent by its co-ordinates a figure that contradicts the laws of space, or to give the co-ordinates of a point that does not exist.**

In light of the *Tractatus*, the pictures which find expression in language are the logical pictures of thoughts. Because these pictures share the form of the world, which Wittgenstein sees as logical, the pictures must also be logical. Further, in sharing the logical form of the world, pictures are able to represent reality from a position outside of that portion of the world that they picture. It has been explained what, in terms of the *Tractatus*, is required of a picture, both in thought and in language, namely, to be logical by sharing in the form of the world.

1.3 'Sense' as that which a picture depicts

The previous section determined that a picture can represent a portion of reality, defined as something logical or subject to law. However, upon further inspection of the Tractatus, it can be seen that this is not a sufficient description of exactly what a picture depicts. Wittgenstein introduces the notion of 'sense' as that which a picture represents. This section is concerned with characterizing this notion of 'sense' as the presentation of a situation which might pertain in the world, and which is compared to the world in order to determine the truth or falsity of the proposition containing it.

Clearly stated in proposition 2.221 is Wittgenstein's notion of a picture as depicting a sense.

14

2.221   What a picture represents is its sense.

It will only be through investigation of the various occurrences of the concept 'sense' in the *Tractatus* that one can grasp its meaning. On reading 2.221 as the first introduction of the notion of 'sense', one might be inclined to say that the sense of a picture is the portion of the world to which it refers. This is, however, a misleading reading. Consider the following proposition.

2.222   The agreement or disagreement of its sense with reality constitutes its truth or falsity.

If one is to consider the portion of the world which is represented in a picture as the sense of that picture, this proposition is incoherent, for the sense would be the reality. The possibility of disagreement does not exist. Similarly, understanding 'sense' as that to which a picture corresponds in reality is not consistent with the presentation of 'sense' in 4.0621.

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 occurrence of negation in a proposition is not enough to characterize its sense (~~*p*=*p*). The propositions '*p*' and '~*p*' have opposite sense, but there corresponds to them one and the same reality.

As indicated in this proposition, '*p*' and '~*p*' correspond to the same reality, the same portion of the world, namely the situation '*p*'. However, '*p*' and '~*p*' have opposite 'sense,' so 'sense' cannot be that to which a picture corresponds. It is seen through this that Wittgenstein acknowledges that a distinction exists between the concept of 'sense' and that of 'reference.' This is indisputably an echo of the distinction that was previously presented by Frege in his work 'On Sense and Meaning' (1892). The view expressed therein identifies 'sense' as that which contains a cognitive mode of presentation, which functions as the significance of what is expressed. A 'reference', on the other hand is that to which the content corresponds when the expression is used.

15

That Wittgenstein maintains a 'sense'-'reference' distinction is shown in propositions such as 3.114, which seems to indicate that while names have a reference, only propositions have 'sense.'[2]

3.144   **Situations can be described but not *given names*. (Names are like points; propositions like arrows – they have sense.)**

Names, it seems, can designate specific points in reality, such as objects. Propositions, however, in presenting situations, as is indicated that they do by this statement, cannot represent simple points. Propositions, in describing situations, must present something beyond a series of points. One might be inclined to say that the sense of a proposition is the way that these points are presented. This would be very much in line with the notion of 'sense' presented by Frege, that 'sense' is a mode of presentation which determines the significance of that which is presented.

It has been pointed out by Peter Carruthers that this Fregean concept of 'sense,' however, does not coincide with the use of the word in the *Tractatus*[3]. He indicates several instances of this, and offers an alternative and cogent interpretation of 'sense' which will be adopted for the purposes of this thesis.

The interpretation of the proposition 3.144, presented above, given by Carruthers is that names can be directed simply at one point, the object which bears the name, while propositions can point in two directions, to the circumstances under which they are true and the circumstances under which they are false. In presenting a sense, a proposition is presenting some situation which can be determined to be true or false in comparison to the world. In this way, he believes, 'sense' is best understood as 'truth-condition.'[4]

---

[2] The notion that names have reference and not sense is in opposition to the theory presented by Frege, that names and propositions can equally have both sense and reference. See 'On Sense and Meaning' (1892) in Geach (1952) pages 56-78.

[3] Carruthers recognizes that 'sense' in the *Tractatus* does not have the cognitive implications of Frege's definition. He uses the example of the tractarian proposition 2.221 which, in light of Frege's notion of 'sense' as a mode of presentation, would have had to read that 'sense' is the *way* a picture represents, as opposed to the tractarian assertion that 'sense' is *what* it represents. See Carruthers (1989) page 24.

[4] Peter Carruthers is concerned with the translation from the original German of the words 'Sinn' and 'Bedeutung,' which are generally translated as 'sense' and 'reference' or 'meaning.' He offers alternative translations, namely 'truth-condition' and 'semantic content.' See Carruthers (1989) pages 21-32 and Carruthers (1990) pages 1-4.

In this light, 'sense' is a presentation of the situation which will render the proposition true, if the situation to which it corresponds in the world pertains. This reading of 'sense' fits smoothly with the proposition 2.222 presented above, which states that the truth or falsity of a proposition lies in the agreement or disagreement of its sense with reality. One can also see how 'sense,' for Wittgenstein must differ from 'reference'. 'Sense' is not the portion of the world to which a proposition corresponds. Rather, it is the presentation of a situation which might pertain in the world, and which is compared to the world in order to determine the truth or falsity of the proposition containing it.

1.4 The 'sense'-'nonsense' limit in language

This section will be concerned with demonstrating that the limit purported in the *Tractatus*, between 'sense' and 'nonsense' in language is a limit to what can be said in any language. Further, it will be argued that Wittgenstein must have felt that this limit is one that can be perceived by the senses and yet not be stated. This will serve as an introduction to the Doctrine of Showing, whereby there are things that can be shown, which cannot be said.

To return to the concept of thought, with which this chapter began, one now has sufficient understanding to comprehend Wittgenstein's meaning when he presents his most explicit definition of thought.

4   A thought is a proposition with a sense.

In asserting that a thought is a proposition, Wittgenstein is stating that a thought is a picture of reality, or a portion of the world, which necessarily shares the logical form of the world. Further, the thought presents a sense, a situation which might pertain in the world, which when compared to the reality it depicts, will determine whether the thought cum proposition is true or false. This

thought, in being a proposition, has the possibility of being expressed in some form of language, and thereby of being perceived by the senses.

The conception of propositions as potentially perceptible is useful in understanding Wittgenstein's intention in stating, as he does in the preface, that a limit must be drawn, not to thought, but rather to language, the expression of thought. The requirement that a limit be drawn not to thought, but to the expression of thought is the requirement that this limit be perceptible. It seems that only in being perceptible, can the existence of a limit have significance. In making it the aim of the only book to be published in his lifetime, Wittgenstein surely felt the demarcation of this limit to be important.

It has not, however, been made clear to what this limit is a boundary. Wittgenstein hints in the preface that the limit is a boundary to 'sense,' by stating that what is on the other side of the limit is 'nonsense.' It must be explored what the significance of a limit betweens 'sense' and 'nonsense' in language might be. It has already been seen, and is confirmed by the proposition 4.064 that 'sense' is inherent to propositions.

4.064   **Every proposition must *already* have a sense: it cannot be given a sense by affirmation. Indeed its sense is just what is affirmed. And the same applies to negation, etc.**

Propositions, according to this statement, have a sense necessarily. This is telling about the significance of a limit to 'sense.' For a limit to 'sense' must also be a limit to propositions and the thoughts that the propositions express. As it has been asserted, in terms of the *Tractatus*, that a proposition has the possibility of being perceived through some form of language, a limit to propositions is a limit to language. The importance of a boundary between 'sense' and 'nonsense' must be that it acts as a limit to what can be said in any language. One is not misled in this belief, for Wittgenstein states clearly in the *Tractatus* what he feels to be the purpose of philosophy, a purpose which his own work must then fulfill.

4.115   **It will signify what cannot be said, by presenting clearly what can be said.**

There is an indisputable correlation between what Wittgenstein feels should be the accomplishment of philosophy, and what he felt to be the purpose of the *Tractatus Logico-Philosophicus*. Namely, to set a limit to what can be said. It has been supposed that the limit is placed in language because in this way it is perceptible to the senses. One is still, however, faced with the problem of how this limit can be perceived. The fact that the limit cannot be in thought because both sides of the limit are not thinkable, also prevents this limit from being stated in language. One must consider in what way language can present a perceptible limit to itself, without stating it. The wording of the above proposition, 4.115, gives a clue. Philosophy will *signify* what cannot be said. While language may not be able to say what cannot be said, it can, in being perceptible to the senses, somehow demonstrate what cannot be said. This is the essence of the Doctrine of Showing, that there are things which cannot be said, but which can be shown. The following chapter will explore the problem of how there can be a limit to language that can be perceived by the senses and yet not be stated.

Chapter 2

The second chapter will give an answer, in terms of the *Tractatus,* to the problem of how there can be a limit to language that is perceptible and yet unsayable. It will first be discussed what Wittgenstein allows that might be said in any language. It will be concluded that all that can be said is that which is presented through a picture, as a possibility in logical space. Next to be explored will be the features of any picture which cause them to represent only possibilities, and this out of necessity. It will be seen that all pictures must hold what will be called the pictorial relation, a relation which holds a picture distinct from the reality which it pictures, thereby allowing a picture to have the possibility of being false, while still acting as a means of comparison of the picture with its depicted reality. This will bring about the conclusion that the limit between what can be said and what cannot be said is a limit between that which exists as a possibility and that which is guaranteed of its truth or falsity. The final section of this chapter will discuss those things, which in accordance with the Doctrine of Showing can be shown in language, but not said. It will conclude that the subject matter which cannot be stated in language, but only shown is the logical form of language and the world, as well as the view of the world as a limited whole.

2.1 What can be said

This section will explore what, according to the *Tractatus*, can be said in any language, and why it can be said. It will first be asserted that Wittgenstein believed that propositions of language can represent only that which finds itself in the world. Further, in that pictures must be distinct from the portion of the world that they depict, it will be said that Wittgenstein felt pictures to occupy logical space. Finally, it will be argued that pictures, in presenting situations in logical space, present mere possibilities.

Wittgenstein's view, which has been presented up to this point, is that what can be stated in language through a proposition, is capable of being so represented because it is a thought, which in turn is a logical picture. The importance of a picture being logical is that it is, Wittgenstein asserts, only by this means that a picture can represent anything in the world. Logic is nothing

20

greater than a reflection of the world, a reflection of that which is subject to law. It is correspondingly disallowed that a picture can represent anything outside of the realm of logic. What a picture can signify, what it is limited to signifying, is something in the world, something logical. It has already been presented in proposition 3.032 that propositions of language, in necessarily being pictures, cannot picture anything outside of that which exists in the logical world. Indeed, 3.032 states that it is impossible for a proposition of language to represent anything but that which finds itself in logic. With logic being nothing more than a reflection of the world which is subject to law, a proposition of language cannot represent anything but that which might find itself in the world. This statement may at first seem radical, however, there is evidence in the *Tractatus*, that this is exactly what Wittgenstein intended one to understand. Take, for example, the proposition 5.61.

5.61 **Logic pervades the world: the limits of the world are also its limits. So we cannot say in logic, 'The world has this in it, and this, but not that.' For that would appear to presuppose that we were excluding certain possibilities, and this cannot be the case, since it would require that logic should go beyond the limits of the world; for only in that way could it view those limits from the other side as well. We cannot think what we cannot think; so what we cannot think we cannot *say* either.**

This proposition clearly imparts that it is impossible to state by means of a logical picture, which is the only means of stating according to Wittgenstein, anything outside of the world. The reason given is, that making a statement about something that does not exist in the world would require logic to go beyond the boundaries of the world, something obviously impossible, since logic is merely a mirror-image of the world. One seems justified in reading the *Tractatus* as asserting that what can be said, what can be pictured, is that which exists in the logical space of the world. The view that there exists such a logical space of the world is presented within the work, and it is used to explain how language-pictures depict the world. It will be very helpful, therefore, to describe Wittgenstein's conception and use of this notion of logical space. The first helpful proposition to be found on this topic is 2.202.

2.202 **A picture represents a possible situation in logical space.**

21

The significance of this statement will most easily be seen in terms of what, it asserts, it is that a picture represents: a possible situation in logical space. This is not the first assertion to be discussed regarding that which is depicted by a picture. It was earlier said, in proposition 2.221, that what a picture represents is its sense. Seen in coordination, propositions 2.221 and 2.202 seem to claim that the sense of a proposition can also be understood as a possible situation in logical space. This definition of 'sense' undoubtedly fits into the definition already given, namely that it is the presentation of a situation which might pertain in the world. As can be seen, this situation is only a possible situation, it is not guaranteed to exist in the world simply because it is pictured. It is for this reason that proposition 2.222 states that the truth or falsehood of a picture is determined by the agreement or disagreement of its sense with reality. If the possible situation, which is the sense of a picture, actually exists in reality, then the picture is true; if not, it is false. It must be emphasized, for it is a concept that will be returned to often in this analysis of the *Tractatus*, that a picture depicts a possibility.

It seems that Wittgenstein also asserts in proposition 2.202 that a picture can present a possibility *because of* the notion of logical space. It may not seem immediately apparent that the existence of logical space is what creates this possibility. However, upon investigation, this becomes clear. Firstly, one should refer back to the propositions, discussed previously, 2.173 and 2.18. The essence of these statements is that a picture must necessarily exist independently of that portion of the world that it pictures, but the picture must still have something in common with the reality that it depicts, namely the logical form of the world. A picture must, in order to be able to represent the world, be subject to law, just as the world is. However, a picture cannot exist within that same portion of the world that it depicts; it must exist separately. To allow for this, Wittgenstein introduces the concept of logical space. A picture can exist in logical space, in which it is subject to the same laws as the world, but it also can remain distinct from the world. Logic is, as previously established, the possibility of being governed by law. Logic can be abstracted from the world, without exceeding the limits of the world. In this way, logical space is that theoretical space inside which, those things that exist are subject to law.

Certain propositions in the *Tractatus* indicate that Wittgenstein felt that logic embodies the notion of possibility, in such a way that pictures, which are necessarily logical, can present a situation as a possibility. To start, the proposition 3.411 lends the understanding that a position in theoretical space, a place, is of its nature a possibility.

3.411   In geometry and logic alike a place is a possibility: something can exist in it.

In the physical world, a place in space has the possibility of being filled by some object. Similarly in the theoretical space of geometry, and more importantly, of logic, a place also has the possibility of having something exist in it. By noting that a place has the possibility of being filled, Wittgenstein is at the same time saying that this space must not be filled by any object, nor must it be filled by a specific object. In his way, Wittgenstein is asserting that logical space is a collection of places which may not be filled by specific entities, or at all, but when they are filled, this is done in accordance with the laws that govern the world. Logical space must, then, be an embodiment of possibility. It is a collection of places, which can be filled by any of a number of possibilities, so long as this possibility is subject to law. In this way, a picture, by existing in logical space, can present a possibility. A picture presents one of a number of possibilities that can fill some place in logical space. In the same way, a proposition of language also presents a possible situation in logical space. As discussed previously, the sense of a proposition is a possible situation. One might say that this possible situation portrayed in the proposition fills a place in logical space. Wittgenstein could be said to agree with this account, for a very similar conclusion presents itself in the proposition 3.4.

3.4   The proposition determines a place in logical space. The existence of this logical place is guaranteed by the mere existence of the constituents—by the existence of the proposition with a sense.

A straight reading of this proposition tells that the fact that a picture can depict a situation in logical space guarantees that there is a place which can possibly be filled by it. However, given what is known about logical pictures and logical space, one must be able to read more deeply into this statement. The following interpretation is possible, and indeed justified. Because a picture, in being logical, conforms to the same laws as the world, the fact that it can present a situation requires that this situation be possible. Further evidence for this interpretation is to be found in the following proposition.

23

2.203   **A picture contains the possibility of the situation that it represents.**

It is due to the fact that a picture presents a situation *in logical space*, that this situation must be a possibility. A picture can present a situation in logical space because a picture has logical form, it is part and parcel of a picture to be subject to law. In having logical form, and thus existing in logical space, a picture must exist in a logical place, which has no more than the possibility of being filled. And this logical place is filled; the possibility is presented in the form of the situation that the picture depicts. To put this very simply, a picture represents a possibility. A picture can do no more than represent a possibility because a picture only exists in logical space, not in that portion of the world that it pictures, therefore, a picture can only fill a place in logical space, and what fills this place can only be one of a number of possibilities. From what has been presented, it seems that the *Tractatus* requires that all that can be pictured, and therefore, all that can be said, is that which has only the possibility of existing.

2.2 The pictorial relation and pictures as possibilities

This section will put forward the claim that all pictures, according to the *Tractatus*, must hold what will be called the pictorial relation, a relation which holds a picture distinct from the reality which it pictures, while still acting as a means of comparison of the picture with its depicted reality. It will be seen that it is through the pictorial relation that a picture can come to have 'sense,' this 'sense' being nothing more than a possible situation in logical space. It is in this way that a picture, in representing a sense, must have the possibility of representing incorrectly, of being false. The conclusion will then be reached that the limit between what can be said and what cannot be said in language is a limit between that which exists as a possibility and that which is guaranteed of its truth.

It is indisputable that Wittgenstein felt that pictures present a possible situation in logical space, and therefore, contain the possibility of being either true or false in their representation. Proposition 2.18, discussed previously, indicates that a picture can depict, correctly or incorrectly, truly or falsely, because it shares the logical form of the world. It is then given in 2.223 that the

24

truth or falsity of a picture is determinable. Further, the truth or falsity of a picture, whether it depicts correctly or incorrectly, is determined through comparison with the portion of pictured reality.

2.223   In order to tell whether a picture is true or false we must compare it with reality.

It is in the 2.151 statements that that Wittgenstein indicates *how* it is that a picture is compared to reality, through a pictorial relation which lays the picture up against reality for comparison.

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

2.1512   It is laid against reality like a measure.

2.15121   Only the end-points of the graduating lines actually *touch* the object that is to be measured.

2.1513   So a picture, conceived in this way, also includes the pictorial relationship, which makes it into a picture.

An image, according to these statements, does not become a picture until it comes to possess the pictorial relation. There are two requirements which have been given for pictures in the *Tractatus*. One, as was seen in the previous section, is that a picture must represent a merely possible situation in logical space, thereby having the possibility of depicting incorrectly. The other is that any picture must hold the pictorial relation. It will be seen that the latter entails the former.

It has been stated that Wittgenstein believed the pictorial relation to be the means by which the sense of a picture is compared with the world. However, it seems that in so doing, the pictorial relation serves a second purpose, namely, to hold the picture distinct from that portion of the world that it depicts. The pictorial relation allows a picture to exist as a representative of some other portion of logical space, by concurrently separating it from, and comparing it to the part of logical space that it represents. If not for the pictorial relation, a picture, in existing in logical

space, would be indistinguishable from the world. This point may need clarification. Consider a photograph, which, while being a picture of some part of the world, still exists in the physical world. It cannot, however, exist in that small portion of the world of which it is a picture. Say the photograph were to be placed in that portion of the world which it pictures, this would not qualify it as existing in that part of the world which it pictured, because that part of the world would no longer exist, it would be new, with the photograph as one of its parts. In considering this example, it is clear that a photograph is distinguishable from the world; it exists as a physical object in the world. Similarly, any other form of picture exists equally in logical space with all other entities in logical space, including the world. What allows a picture to exist in logical space as a picture, a representation of the world, is the pictorial relation. The pictorial relation establishes a direct link between the picture and its depicted reality. In this way, the picture is held, as necessary, distinct from the reality it represents. At the same time, this relation acts as a means of comparison whereby the truth or falsity of the picture can be determined.

It can now be seen how the pictorial relation allows, by holding a picture distinct from, and measuring it up against its depicted reality, for a picture to have 'sense.' This can be understood by making reference to Wittgenstein's discussion of propositions, their signs and their projective relation to the world. Propositions 3.11 and 3.12 describe a propositional sign as being that with which one is able to perceive the sense of a proposition. It is this sense which is projected onto the world, which is measured up against the world[5].

3.11   **We use the perceptible sign of a proposition (spoken or written, etc.) as a projection of a possible situation. The method of projection is to think the sense of the proposition.**

3.12   **I call the sign with which we express a thought a propositional sign. – And a proposition is a propositional sign in its projective relation to the world.**

These thoughts on propositions can easily be transposed into a view on pictures, and validly so since propositions are necessarily pictures. A picture, like the proposition described in 3.11 and 3.12, communicates a sense, and it is this sense which is measured up against the world through a

---

[5] I am equating the 'method of projection' with the pictorial relation here to avoid slipping into the psychologism which might be implied by considering 'method of projection' to be equivalent to Frege's 'mode of presentation.'

pictorial relation. This description imparts no new information on the nature of either pictures or the pictorial relation. The noteworthy comments appear in proposition 3.13.

3.13   **A proposition includes all that the projection includes, but not what is projected. Therefore, though what is projected is not itself included, its possibility is. A proposition, therefore, does not actually contain its sense, but does contain the possibility of expressing it. ('The content of a proposition' means the content of a proposition that has sense.) A proposition contains the form, but not the content, of its sense.**

This proposition does not seem to accord with the understanding of a proposition as a picture which has 'sense' necessarily when it says that a proposition does not contain it's sense, but only the possibility of this sense. One must look to the notion of 'sense' again, in order to clarify the understanding of 3.13[6]. 'Sense', it has been said, is the presentation of a situation which might pertain in the world. As an example, 'Sense' would state 'this particular leaf, on this particular tree, has this particular property,' not any property of any leaf on any tree, or that property of any leaf on that particular tree. The specific applications of property, leaf and tree required for 'sense' can only come through direct reference to the world[7]. In order to express the particular sense of the picture, the picture must be laid against reality via the pictorial relation, which can then indicate 'this tree, this leaf and this property.' A picture not connected to the world via the pictorial relation would only be able to contain variables which can then be filled in when it is directly associated with the world[8]. It is in this way that a proposition can be said not to contain its sense, but only the possibility of representing it. That any proposition have 'sense' requires that all pictures stand in direct relation to the world via the pictorial relation. Without the pictorial relation, no picture or proposition could have a sense.

This discussion has revealed that the sense of a proposition is just one of the possibilities that could have been signified by the variables contained in the proposition. The pictorial relation, in

---

[6] While it is not relevant to this reading of 3.13, the proposition can be seen as Wittgenstein's response to Russell's problem of the sense of a judgment. Russell felt that a judgment proposition had to include the objects, the relations that pertain as well as the form that these take, in order to prevent a nonsensical judgment. A lucid explanation of this theory is to be found in Wahl (1986).

[7] It is this immediate acquaintance of the parts of a proposition with the relevant entities in reality that distinguishes this view from the more cognitive view of Frege, in which sense is more closely associated with the thought-content of the speaker of a proposition, whereby sense determines reference. See 'On Sense and Meaning' (1892) in Geach (1952) pages 56-78

[8] A similar idea is put forth by James Griffin. He associates the sense of a proposition with a particular occasion of the use of the names contained in it, this view being adapted from P. F. Strawson in 'On Referring.' See Griffin (1964) pages 130-131.

27

allowing for 'sense' through a direct correspondence of a picture with the world, specifies one possibility. One can see from this that, in holding the pictorial relation necessarily, pictures, and therefore, propositions can only represent possible *situations* in logical space. However, it must be clarified that it is only the situations which are the possibilities in logical space. The entities which make up the situation exist necessarily in logical space. When the sense of a picture, a possible situation, is held up against the world, the pictorial relation correlates the entities in the sense with the relevant entities in reality. This idea is captured in the proposition 2.15121, which states that the end points of the graduating lines of the relation between 'sense' and reality touch the objects to be measured. It is the situation presented in a sense, not the entities themselves which is being compared with reality for truth or falsity. It is the situation that has the possibility of being presented incorrectly, such that the picture presenting this sense can be false. Thus, the requirement, presented previously, that pictures, and therefore propositions, must have the possibility of being false is entailed in a picture representing a situation which has only the possibility of pertaining in reality. The above discussion has revealed a noteworthy point about the pictorial relation. The pictorial relation allows for there to be a separation between truth and meaning for pictures. A picture's being false does not require that it cannot still represent something. A picture must represent something, and that something is its sense, a possible situation in logical space.

It has been seen that Wittgenstein feels that pictures must be held up against reality by the pictorial relation in order for the truth or falsity of that picture to be determined. If pictures did not have the possibility of being false, then the *Tractatus* would not have to present the requirement that a picture be compared to the world via the pictorial relation, because the truth of the picture would be known without this comparison. Pictures, in this case, would be true a priori, this truth precluding the role of the pictorial relation. Wittgenstein, through the proposition 2.225, confirms the central role of the pictorial relation, and the nature of pictures as possibilities in denying that there might be any pictures which are guaranteed of their truth.

2.225   There are no pictures that are true a priori

It is now possible to sum up what has been discovered thus far, and place this understanding in terms of the limit that has been said to exist between what can be said and what cannot be stated

in language. All that can be said in language is that which can be pictured. All that can be pictured is that which does not hold necessarily. Further, that which is a possibility and therefore picturable, must exist in logical space, the realm of things which do exist necessarily. That which, on the other hand, does not exist in logical space, or that which is true a priori cannot be depicted in a picture. This brings about the conclusion that the limit between what can be said and what cannot be said in language is a limit between that which exists as a possibility in logical space and that which is guaranteed of its truth.

2.3 What can be shown

As the previous section dealt with those things which exist as possibilities in logical space, this section will handle those things in logical space which are guaranteed of their truth. First to be discussed will be the Doctrine of Showing, whereby Wittgenstein felt certain a priori truths to be shown in language, rather than stated. It will then be revealed that, in the *Tractatus* there are two such a priori truths which are consistently the subject matter of that which is inexpressible in language. The first is the logical form of language, the second, the view that the world is a limited whole.

Wittgenstein's view in the *Tractatus* has been presented to be that what can be said in language is that which exists as a possibility in logical space, and therefore, contains the possibility of being true or false. What will be discussed now are those things which are guaranteed of their truth or falsity, namely tautologies and contradictions. Wittgenstein states explicitly that neither a proposition containing a tautology, nor one containing a contradiction can be a picture. In that neither is a picture, neither, according to the *Tractatus* can state anything about the world. It will, however, be revealed in the ensuing discussion that these forms of proposition *show* something about the world. Herein is the essence of the Doctrine of Showing, that there are things which are necessarily true about the world which cannot be stated in language, but only shown. The proposition 4.462 is a good starting point from which to explore this idea. The association between picturability, existing as a possibility and containing the pictorial relation, which has been attributed to Wittgenstein in previous argument, is echoed in this proposition.

29

4.462   Tautologies and contradiction are not pictures of reality. They do not represent any possible situations. For the former admit *all* possible situations, and the latter *none.* In a tautology the conditions of agreement with the world – the representational relations – cancel one another, so that it does not stand in any representation relation to reality.

The proposition 4.0621, previously presented, indicated that the opposing propositions '*p*' and '~*p*' have opposite 'sense', but correspond to the same reality, as they must when given in the tautology ~(*p* . ~*p*). It has also been put forth that 'sense' is a result of the connection between a picture and a portion of the world through the pictorial relation. Further, a sense acts as the truth condition for a picture. Considered in this light, a tautology has two opposing truth conditions, which would have to be established through two rival pictorial relations. These pictorial relations must cancel one another. Wittgenstein alleges that this prevents a tautology from standing in relation to the world at all, which would substantiate the claim that a tautology cannot be a picture. There is, however, nothing that prevents a tautology from being logical, which it is. A tautology shares the logical form of the world, however, it does not stand in connection to the world. This, one can assume, grants it the capability of being true for all possibilities. To put this in more understandable terms, an example of a tautology would be the statement, 'The man is either here or not here.' Given the existence of the man, this statement can be true for all possible whereabouts of the man: here, a few steps away, or on the other side of the continent, etc. However, in that it is not a picture, this tautology cannot represent all of these possibilities. A tautology cannot say anything about the whereabouts of the man, it cannot say anything about the world. Similarly, a contradiction can also say nothing about the world, for it is true under no circumstances. Yet, both tautologies and contradictions manage to impart information in some fashion or another. One can read the proposition 6.1201 as an explanation of this fact.

6.1201   For example, the fact that the propositions '*p*' and '~*p*' in the combination '~(*p* . ~*p*)' yield a tautology shows that they contradict one another. The fact that the propositions '*p* ⊃ *q*', '*p*', and '*q*', combined with one another in the form '(*p* ⊃ *q*) . (*p*) :⊃ : (*q*)' yield a tautology shows that *q* follows from *p* and *p* ⊃ *q*. The fact that '(*x*) . *fx* : ⊃ : *fa*' is a tautology shows that *fa* follows from (*x*) . *fx*. Etc. etc.

If a proposition is either a tautology or a contradiction, then the fact that it is a tautology *shows* certain information about the world. They demonstrate certain logical rules and necessities in

logical space, while they cannot state these. That the statement "'p' and '~p'" yields a tautology, displays the fact that the two propositions, 'p' and '~p' are contradictory. While a tautology can show this, it cannot state this. It cannot state that these propositions contradict one another, as it cannot be pictured that "The fact that the man is here contradicts the fact that the man is not here." The fact that the tautology cannot stand in connection with the world because the pictorial relations cancel one another *shows* that this contradiction in 'sense' exists. In fact, that this contradiction can be shown in this way prevents it from being stated. This detail is revealing about Wittgenstein's thoughts on the notion that certain information can be displayed, as embodied in the following statement.

4.1212   What *can* be shown, *cannot* be said.

A potent example of this idea presents itself in the form of the pictorial relation itself. If pictures exist, then the pictorial relation also exists in logical space, acting as a bridge between pictures and their depicted realities. Therefore, if any picture is to exist, then the pictorial relation must also exist necessarily. In that pictures do exist, it is a truth that the pictorial relation also exists. However, no picture is capable of picturing the pictorial relation, and therefore, no proposition can say that the pictorial relation exists. If a picture were able to depict the pictorial relation, it would have to picture the relationship between itself and what it represents, which is an impossibility. In that any picture exists, it is *shown* that the pictorial relation also exists, and in that this can be shown, it can never be said.

One can now have a relatively clear picture of the Doctrine of Showing that is credited to Wittgenstein. There are certain things in logical space which, in not being able to be presented as mere possibilities, cannot be pictured, and therefore, stated. These things can, however, be shown or demonstrated in some way by that which can be stated in language. Further, what can be shown in such a way cannot be said. A complete reading of the *Tractatus* reveals that the circumstances in which Wittgenstein refers to that which cannot be stated, but rather only shown are repeated continually. These circumstances seem to reveal what, in essence, he must have felt needs to be demonstrated, but which he felt cannot be said. The first is that logical form exists and that it is of a certain nature. The existence of logical form must be shown by the fact that

31

pictures and therefore, propositions of language can possibly exist. Consider the following proposition.

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

The logical form of propositions, as was argued earlier, is the logical form of the world. The law governing the world, and therefore, logic might theoretically be one of a number of different sets of law. However, this will never be demonstrable, as one cannot breach the limits of the world in order to view the form of the world as one possibility amongst many. Therefore, it will never be possible to present the logical form of the world, the same logical form of language, as a possibility. Logical form will never be picturable, it will simply be displayed in all other pictures governed by its law.

The idea that logical form can only be, and must be, displayed presents itself numerous times throughout the *Tractatus*. Another example regarding the laws that govern the world, of which logic is a reflection is proposition 6.36. The statement is a characterization of the idea that if a law exists such that the world might be subject to it, then this can never be pictured or stated in language, but can only be shown.

6.36 **If there were a law of causality, it might be put in the following way: There are laws of nature. But of course that cannot be said: it makes itself manifest.**

Not all of the propositions handling the subject of logical form are concerned with its existence. Many deal with the nature of this logical form, what of it is actually demonstrated. One instance is the proposition 6.1201 which put forth the topic of what is demonstrated by tautologies and contradictions. The notion of showing also presents itself in propositions discussing issues such as logical equality, as in the following.

6.23   If two expressions are combined by means of the sign of equality, that means that they can
        be substituted for one another. But it must be manifest in the two expressions themselves
        whether this is the case or not. When two expressions can be substituted for one another,
        that characterizes their logical form.

The logical form of language is only one of the circumstances in which the Doctrine of Showing
appears. The other propositions in which Wittgenstein explicitly states that there is something to
be shown, where something is manifest, seem to fall into a single category. The characteristic
view of the propositions in this category is portrayed in the following statements.

6.522   There are, indeed, things that cannot be put into words. They *make themselves manifest.*
        They are what is mystical.

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.

What can be shown, but not said in this case, is that the world is a limited whole. That this is
unsayable is consistent with the views of the *Tractatus* already propounded. One cannot think
beyond the limits of the world. While one cannot think that which is illogical, namely the other
side of this limited world, that the world must be limited is a truth. That the world is limited must
not be picturable. To refer back to statement 5.61 is helpful. This proposition states that one
cannot state what cannot exist in the world, for it would be stating possibilities beyond the world,
one would be crossing the impassable limit. Proposition 5.62 also handles the subject of the
necessarily limited world, from the point of view of solipsism. In essence, it says, the limits of
language are the manifestation of the limits of the world

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

The subject matter of what is inexpressible in language is the logical form of language and the
world, and the view of the world as a limited whole. That these things cannot be stated in
language fits clearly with the tractarian idea that it is that which is guaranteed of its truth in

33

logical space that can only be shown. The Doctrine of Showing allows it to be discernable that there is a limit between that which is expressible in language and that which is not, by making both sides of that limit perceptible.

Chapter 3

The previous chapter dealt with those things which Wittgenstein felt can be put into words, and those that cannot be said, but rather only shown. This chapter is concerned with that which cannot either be said or shown, that which Wittgenstein, in his preface, calls 'nonsense.' The first step will be to characterize 'nonsense,' in terms of the *Tractatus*, as those propositions that cannot have 'sense' due to the preclusion of one or more of their constituents from being correlated with reality. It will thereafter be discussed how Wittgenstein felt that his propositions, which must, according to their own standards, be nonsensical, can convey information. It will be argued that Wittgenstein must have considered his propositions to be of the same general form as propositions which have 'sense'

3.1 'Nonsense'

This section will characterize 'nonsense' in terms of the *Tractatus* as the impossibility of having 'sense' through the preclusion of one or more of the constituents of a propositions from being correlated with reality via the pictorial relation.

Previous discussion has revealed that for Wittgenstein the essential requirement for 'sense' is that it be able to correspond with reality. The characterization of 'nonsense' must, therefore, be concerned with showing the inability of a nonsensical statement to correspond with reality via the pictorial relation. Evidence for this reading is to be found in the proposition 5.473, in which the symbolic language of logic is discussed. It asserts that it must be possible for the symbols of logic to stand for something. Whether a symbol has a meaning in the context of the statement is what determines the 'sense' or 'nonsense' of the logical statement.

> 5.473 **Logic must look after itself. If a sign is *possible*, then it is also capable of signifying. Whatever is possible in logic is also permitted. (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.) In a certain sense, we cannot make mistakes in logic.

This proposition seems to say that the statement 'Socrates is identical' is nonsensical because it cannot be a picture, and therefore correspond to the world via the pictorial relation, due to the fact that the word 'identical' lacks meaning in the sentence. The structure of the sentence itself, what might be called its 'logical structure' is valid. If some meaningful expression were to replace the word 'identical' in this statement, it would be possible for the statement, then, to be a picture, by corresponding to the world via the pictorial relation. In this case 'identical' would have to indicate a property rather than a relation, which is its normal syntactical usage, for the statement to be able to correspond to reality via the pictorial relation. It seems that Wittgenstein makes an appeal to Russell here, if one were to understand his argument to be that the statement that 'Socrates is identical' does not denote anything, and in having no denotation, cannot form a picture. According to Russell's theory of descriptions, 'Socrates is identical' cannot denote anything because it does not present a description which can be uniquely satisfied by 'Socrates,' which in turn can be determined to be either true or false.[9] One can see that in not denoting anything, it is impossible for the statement 'Socrates is identical' to be correlated with reality via the pictorial relation and therefore, have 'sense.'

One can see at this point that to be 'nonsense' is more than to lack 'sense' by not being correlated to some portion of reality via the pictorial relation. It is the impossibility of being so correlated that defines something as nonsensical, in terms of the *Tractatus*. It is for this reason that Wittgenstein did not consider tautologies and contradictions to be nonsensical, though they lack 'sense.' The proposition 4.4611 illustrates this.

4.4611   Tautologies and contradictions are not, however, nonsensical. They are part of the symbolism, much as '0' is part of the symbolism of arithmetic.

One must remember from the previous discussion of tautologies and contradictions that propositions of this type do not have 'sense' because the pictorial relations for each of their disparate assertions cancel one another. The statement 'The man is here or the man is not here'

---

[9] See 'Knowledge by Acquaintance and Knowledge by Description' in Russell (1917) pages 209-232.

presents two opposing possible situations. Nothing, however, prevents each one of these possible situations, taken on its own, from standing in relation to the world via the pictorial relation and thereby having 'sense.' By presenting the confliction statements together, one is presented with the limit of possibilities. The same must hold true for contradictions, which present the opposite limit to possibilities, comparable to zero. Of chief importance in understanding why tautologies and contradictions are not considered nonsensical is the fact that it is possible for each of the constituents of these propositions to be correlated with the world. 'Nonsense' must be more than not having 'sense,' it must be the impossibility of having 'sense' through the preclusion of one or more of the constituents from being correlated with reality.

3.2 The propositions of the *Tractatus* and the general form of propositions

This section will argue that Wittgenstein, in identifying the propositions of the *Tractatus* as nonsensical, must have considered them to be of the same general form as propositions which have 'sense,' such that they might still be informative, as he thought them to be. It will first be put forth that Wittgenstein's propositions demonstrate that there are certain forms that propositions can validly take. It will then be asserted that the propositions of the *Tractatus*, in being of a general form reveal that the structures of propositions stand in internal relations to one another. This, in turn, reveals that the structures of situations in reality stand in internal relations to one another. The internal relations between the propositions representing these situations, mirroring the relations between the structures of situations in reality, reflect logical truths about the world and form a 'logic of propositions.'[10]

In being that which does not contain the possibility of having 'sense,' 'nonsense' can be understood, in terms of the *Tractatus,* as that which can neither be said nor shown. Wittgenstein expresses the view that in general, philosophy attempts to contend with the 'nonsensical.' It is of little surprise then, that Wittgenstein expresses the following attitude towards philosophy.

---

[10] This term is taken from Fogelin (1976) who uses it as a chapter heading.

4.003   Most of the propositions and questions to be found in philosophical works are not false but nonsensical. Consequently we cannot give any answer to questions of this kind, but can only point out that they are nonsensical. Most of the propositions and questions of philosophers arise from our failure to understand the logic of our language. (They belong to the same class as the question whether the good is more or less identical than the beautiful.) And it is not surprising that the deepest problems are in fact *not* problems at all.

Undeniably, Wittgenstein felt it enough of a problem that in philosophy attempts are made to say what he felt cannot be said, to write the only book published in his life in an effort to reveal this. Unfortunately, in so doing, Wittgenstein finds himself guilty of transgressing the limit of the sayable. The propositions of the *Tractatus*, as he admits in proposition 6.54, are nonsensical.

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

However, that one *can* come to understand these statements to be nonsensical demonstrates that they must in some way remain informative about that which cannot be put into words.

If the propositions of the *Tractatus* are nonsensical, this must be because one or more of their constituents cannot be correlated with at least some portion of the world. It seems to follow that one could theoretically replace these 'nonsensical' constituents with constituents that can connect with the world, resulting in a proposition with a sense. It seems that, while remaining nonsensical, the tractarian propositions are of the same general form of those propositions that can have a sense. This might be the way in which Wittgenstein felt his statements to be informative: they demonstrate a general form of propositions. There is no doubt that the *Tractatus* propounds that a general form of propositions exists. Further, there is strong evidence that Wittgenstein would concur on the idea that the propositions of the *Tractatus* show the general form of propositions because the 'nonsensical' constituents could be replaced with sensical ones. This would be in accordance with the view put forth in the statement of 3.315.

3.315   If we turn a constituent of a proposition into a variable, there is a class of propositions all of which are values of the resulting variable proposition. In general, this class too will be

dependent on the meaning that our arbitrary conventions have given to parts of the original proposition. But if all the signs in it that have arbitrarily determined meanings are turned into variables, we shall still get a class of this kind. This one, however, is not dependent on any convention, but solely on the nature of the proposition. It corresponds to a logical form—a logical proto-type.

It seems that nonsensical propositions, as well as those representing a sense are capable of being generalized in the manner described in this proposition. To refer back to the previous example of 'Socrates is identical,' 3.315 indicates that the parts of this statement which have arbitrarily determined meanings, namely 'Socrates' and 'identical,' are replaceable with variables resulting in a generalized proposition capable of representing all propositions of the form 'x is y'. It is then possible that 'x' and 'y' can be replaced with a name and property, each in its correct syntactical function, thereby allowing the proposition to represent a sense.

The above proposition puts forth the idea that a proposition containing multiple variables when generalized can only exist as a logical proto-type of a class of propositions which all have the same form. There are many forms that propositions can take, 'x is y' being just one. This thought must have prompted Wittgenstein to acknowledge that one form cannot represent any other, thereby concluding in proposition 4.53 that the most general propositional form can only be captured in a variable.

4.53   The general propositional form is a variable.

While being nonsensical, Wittgenstein surely felt that his propositions display at least a selection of the valid forms that any proposition can take on when representing a sense. In that the form of a proposition cannot itself be the subject matter of a picture, the fact that there are specific valid forms that propositions can take on must be a demonstrable truth, but not one that can be stated. Given the definition presented previously, that form is the possibility of structure, any proposition presenting a sense must display the actual structure of its sense. Wittgenstein's nonsensical propositions, on the other hand, do not take on any actual structure of a situation in logical space, they must rather portray the possibility of taking on various structures. That there are certain valid forms of propositions must be one of the unstatable truths that Wittgenstein felt his propositions to be informative about.

39

If the constituents of Wittgenstein's propositions were to be meaningfully replaced with others, such that the propositions came to have 'sense,' then each of Wittgenstein's propositions could validly represent a multitude of different senses. This in itself is revealing about the nature of the world, namely, that the structures of situations in the world are related to one another. That situations in the world are connected to one another is a truth about the world, a manifestation of the internal nature of the situations. It is for this reason that Wittgenstein states that situations stand in internal relations to one another[11]. Further, he asserts in the proposition 4.125 that these relations are reflected in the internal relations between the structures of the propositions representing these situations.

4.125   The existence of an internal relation between possible situations expresses itself in language by means of an internal relation between the propositions representing them.

It must be explored what sorts of truths about the world are revealed through the internal relations between the structures of situations, and therefore the structures of the propositions representing these possible situations. Consider again the tautology 'The man is either here or not here.' The conflicting propositions presented in this tautology prevents it from having a sense. The fact that these propositions contradict one another cannot be meaningfully stated in a single proposition. However, that the possibility of the totality of situations represented by these propositions exists in the world is an a priori truth about the world. This is part of the logical form of the world. If each of the conflicting situations, such as 'The man is here,' 'The man is five meters away,' 'The man is on another continent,' etc. were to be presented in its own separate proposition, then the structures of these propositions would show themselves to be contradictory. These propositions would, therefore, stand in relation to one another via an immediate internal relation. The importance in acknowledging these internal relations is that they, in reflecting logical necessities, cannot be pictured and can only be expressed in a 'logic of propositions' whereby the structures of propositions reflecting possible situations stand in relation to certain others. That Wittgenstein

---

[11] Internal relations were characterized by the idealists as being grounded in the intrinsic natures of the terms related. While Wittgenstein acknowledges that such relations exist, he in no way thereby commits himself to the idealist view, rejected previously by Russell, that *all* relations are internal relations. It would have to follow from this belief, as it did for the idealists, that each part of the whole of reality has an intrinsic nature which exhibits relations to every other part of the whole. In not committing himself to this view, Wittgenstein allows himself the freedom of the belief in an epistemological and ontological atomism in which each thing that exists can be understood in isolation from all other things.

intended one to understand that there is a so-called 'logic of propositions' is expressed in propositions such as 5.131.

5.131   **If the truth of one proposition follows from the truth of others, this finds expression in relations in which the forms of the propositions stand to one another: nor is it necessary for us to set up these relations between them, by combining them with one another in a single proposition; on the contrary, the relations are internal and their existence is an immediate result of the existence of the propositions.**

If it is the case that the truth of a proposition follows from the truth of another, Wittgenstein seems to claim that this relation *must* be demonstrated through the internal relation pertaining between the structures of the pertinent propositions.   Further evidence for a 'logic of propositions' in the *Tractatus* presents itself in the form of the proposition 5.21 where it is stated that all propositions *must* stand in internal relation to one or more other propositions.

5.21   **In order to give prominence to these internal relations we can adopt the following mode of expression: we can represent a proposition as the result of an operation that produces it out of other propositions (which are the bases of the operation).**

This statement seems to indicate that internal relations are logical truths about the world. While the exact nature of the operation referred to is not influential in the present discussion, the following comment on it reveals that an operation is the expression of an internal relation that already exists between the structures of the relevant propositions.

5.22   **An operation is the expression of a relation between the structures of its result and of its bases.**

The internal relations that form the 'logic of propositions' mirror the internal relations that exist between the structures of situations in the world. Thus, the 'logic of propositions' reflects certain a priori truths about the world which are manifested in the internal relations holding between the structures of situations in reality.

In conclusion, the propositions of the *Tractatus* reveal first, that there is a general form of propositions, to be capable of representing a sense. Secondly, they reveal that there is a 'logic of propositions' reflecting a priori truths about the world. Wittgenstein's propositions, while being nonsensical by their own standards are able to lay bare these truths only in so far as they themselves demonstrate the general form of a proposition.

Summary

It can be said that Part one has shown, as it was hoped, that the pictorial relation plays a central role in the *Tractatus* in allowing for the propositions contained within the work to remain informative, while they are nonsensical according to their own standards. This is apparent in the following summary of Wittgenstein's ideas as discussed in Part one.

It was argued that Wittgenstein's propositions are informative in so far as they demonstrate the general form of propositions which are capable of representing a sense. The tractarian propositions, while they may not state anything because they are nonsensical, show certain truths about the world, and in so doing, about the form of language which is a reflection of the logic of the world. It is, therefore, clear that if these propositions are going to be informative in this way, there must be a strict characterization of 'sense.' A precise definition of 'sense' allows that there can be a distinction first, between 'sense' and 'nonsense' and second, between what can be stated and what can be shown. It was seen that the definition of 'sense' depends upon any proposition representing a sense having the possibility of being false. In order to have the possibility of being false, any picture cum proposition must be held distinct from the reality which it pictures, and must have a means of comparison of that picture with its depicted reality such that its truth or falsity can be determined. The means through which each of these processes is accomplished is the pictorial relation.

Part 2

The purpose of part two of this thesis is to draw attention to the requirements that must be met by the *Tractatus* if the pictorial relation is to act as a means of comparison between a proposition and reality, such that the truth or falsity of that proposition is determinable. Part one revealed that the pictorial relation must be able to play this vital role if the propositions of the *Tractatus* are to remain informative while they are nonsensical by their own standards. The first demand which must be met, if the pictorial relation is to serve its given purpose, is that the truth or falsity of a proposition must be determinable by correlation of its sense with nothing more than the situation it depicts in reality. The twofold tractarian response to this demand will be addressed in chapter four. Chapter five is concerned with the demand that a proposition be able to represent no more than one sense, a requirement that I feel is answered by Wittgenstein's account of logical multiplicity. This will involve giving a unique reading of logical multiplicity, a concept which I feel is unjustly brushed over in the literature currently available on the *Tractatus*. To my knowledge, the majority of works in the literature approach the topic of logical multiplicity biased by already formulated views on the nature of objects, views which equate logical multiplicity with the number of distinguishable elements in a situation. I choose to approach the topic differently, for I feel that there is evidence in the *Tractatus* that the notion of logical multiplicity goes beyond this equation and can shed light on how to approach the topic of distinguishable elements. This will in turn influence the discussion of the status of objects in the *Tractatus*, a topic to be addressed in chapter six.

Chapter 4

This chapter will handle the subject of what is required if the pictorial relation is to act as a means of comparison between a picture and the reality it depicts such that the verity or falsehood of the picture can be determined. First to be discussed will be Wittgenstein's requirement that a proposition have a sense that is independent of the sense of any other proposition. It will be revealed that this requirement is only met if simple objects exist. The conclusion will also be reached that the truth or falsity of a proposition should be determinable by comparison of the sense of a picture solely to its depicted reality. In the following section the tractarian account of simple objects will be shown to establish that the existence of any state of affairs depends solely upon the internal properties of the objects that constitute it. It will then be argued that it is only in the case when the nature of simple objects determines the possibility of existence of states of affairs that the pictorial relation can serve its purpose of acting as a means of comparison between the sense of a proposition and its depicted reality so that the truth or falsity of a proposition can be determined.

4.1 Simple objects and the independence of 'sense'

This section will explain Wittgenstein's requirement that simple objects exist if it is to be possible to form a picture that represents a sense independent of any other sense, such that the truth or falsity of that 'sense' is determinable through the pictorial relation. This will be accomplished by exposing that the *Tractatus* purports that if the substance of the world were complexes rather than simples, then one would be caught in an infinite regress of propositions acting as descriptions, which are incapable of representing a sense independent of the sense of another proposition.

The primary argument for simple objects allowing for it to be possible to form pictures representing a sense is laid out in the 2.021 statements.

2.021 Objects make up the substance of the world. That is why they cannot be composite.

2.0211 If the world had no substance, then whether a proposition had sense would depend on whether another proposition was true.

2.0212 In that case we could not sketch any picture of the world (true or false).

The argument will be most clear if the statements of 2.0211 and 2.0212 are first merged in the following manner. If the world had no substance, then whether a proposition had sense would depend on whether another proposition was true. If whether a proposition had sense depended on whether another proposition were true, then we could not sketch any picture of the world (true or false). It seems that Wittgenstein would want one to construct two modus tollens arguments out of these statements, for if the *Tractatus* is to be consistent, it would have to say that it is possible to form true and false pictures of the world. Thus, as it is possible to sketch both true and false pictures of the world, then whether a proposition has sense does *not* depend upon whether another proposition is true. Given that a proposition's having 'sense' does not depend on whether another proposition is true, the world must, therefore, have substance.[12] 2.021 then adds the view that the substance of the world is simple, as opposed to complex objects. While the argument is given here that simple objects allow for the possibility of forming a picture capable of representing a sense, it does not lend any enlightenment as to the reasons for this belief.

An exposition of the tractarian view on propositions about complexes will be revealing as to why it is said that complexes cannot form the substance of the world. Further, it will reveal why Wittgenstein felt that simple objects allow for a picture to represent a sense which the pictorial relation can correlate with reality. The most informative commentary on complexes is to be found in the proposition 3.24.

3.24 A proposition about a complex stands in an internal relation to a proposition about a constituent of the complex. A complex can be given only by its description, which will be right or wrong. A proposition that mentions a complex will not be nonsensical, if the complex does not exist, but simply false. When a propositional element signifies a complex, this can be seen from an indeterminateness in the propositions in which it occurs. In such cases, we *know* that the proposition leaves something undetermined. (In fact the notation

---

[12] This helpful reading is given by Griffin in his (1964) page 65.

45

for generality *contains* a prototype.) The contraction of a symbol for a complex into a simple symbol can be expressed in a definition.

This proposition asserts that any proposition concerning a complex can only give a description of that complex. This is revealing, in that a description can only speak about how things are, not what they are. A description it seems could only ever give the form of a complex, stating how things in that complex are, and not the content, what the things in the complex are. That a description can only give the form of a complex and not its specific content is indicated in the fifth sentence of this proposition, which states that a proposition concerning a complex contains a prototype, that it leaves something undetermined. What is left undetermined must be the specific content, the specific things, that can fit into that prototype.

On this understanding of propositions concerning complexes, such a proposition could never have a sense in the way that 'sense' has been defined in the *Tractatus*. 'Sense,' it has been seen, is required to be the presentation of a specific situation which might pertain. A proposition acting as a description which presents the form and not the content of a complex has the possibility, in being a prototype, of representing all the situations having that form, not just one specific one. In order for a proposition concerning a complex to have a sense, another proposition asserting the specific instance, the specific situation to which the description applies must be true. However, if the proposition specifying this situation is itself a description of a complex, it's sense will similarly depend upon the truth of another proposition. The tractarian view must be that if there are only propositions which are descriptions, then this regress will carry on ad infinitum. In order to stop this regress, one must be able at some point to give a content rather than a more specific form. This content must be what Wittgenstein calls the substance of the world in the propositions 2.021 and 2.0211: objects. The arguments presented up to this point imply that these objects cannot be complex objects. The proposition 2.02 states clearly the tractarian view that the objects which are the substance of the world are not complex.

2.02   Objects are simple

Wittgenstein's argument can be summed up as saying that if it is going to be possible for a proposition to have a sense, independent of the sense of any other proposition, then there must be

simple objects which can act as the content of that sense. In other words, simple objects allow for a proposition to represent a sense, such that the truth or falsity of that proposition can be determined simply by comparison of its sense to its depicted reality, independent of the sense of any other proposition. The following section will lay out the tractarian conditions which must be in place if the verity or falsehood of a proposition is to be determined solely by comparison to that portion of the world that it depicts, and no other.

4.2 Simple objects, states of affairs and the function of the pictorial relation

This section will delineate Wittgenstein's account of simple objects as possessing internal properties. It will be established that this account provides that the possibility that any state of affairs exist depends solely upon the internal properties of the constituting objects. It will then be argued that this account allows for the pictorial relation to determine the truth or falsity of a proposition by correlating the sense of a picture with nothing more than its depicted reality.

Wittgenstein's account of simple objects involves a distinction between internal and external or material properties. Simple objects, he claims, have internal properties which, it will be seen, determine the combinations that they form. It is asserted that it is these combinations of simple objects which display external, or material properties, not simple objects in isolation. This contention is seen in the following statement.

2.0231 **The substance of the world *can* only determine a form, and not any material properties. For it is only by means of propositions that material properties are represented – only by the configuration of objects that they are produced.**

It was previously argued that simple objects are what Wittgenstein calls the substance of the world. One can, therefore, read this statement as saying that simple objects do not, in isolation, determine material properties. Propositions which present possible situations in reality, combinations of simple objects, represent material properties which are generated by the combinations themselves. It seems that it is the structure of a situation or possible situation, how

47

simple objects are combined, that cause material properties. In this light, the first sentence of the above proposition is revealing about the role that simple objects play in and of themselves: they determine the forms, the structures *possible* for situations. This is where internal properties play a role. Wittgenstein claims that simple objects in isolation have internal properties, and these internal properties determine the combinations that objects can form. Taken in combination, the propositions 2.01231 and 2.0123 put forth exactly this argument.

2.01231 **If I am to know an object, though I need not know its external properties, I must know all its internal properties.**

2.0123 **If I know an object, I also know all its possible occurrences in states of affairs. (Every one of these possibilities must be part of the nature of the object.) A new possibility cannot be discovered later.**

Knowing an object involves knowing the internal properties of that object and at the same time knowing all of the states of affairs, or situations in which it can occur. Clearly the internal properties of an object make up the nature of that object, which, it is said, contains the possibility of each combination that it might form, each situation in which the object might be a part. The distinction that Wittgenstein makes between internal and material properties is this: simple objects have internal properties which determine the combinations which these objects form. Material properties are produced by the combinations themselves.

As the proposition 2.0231 put forth, it is through the sense of propositions that one is presented with material properties. In that the *Tractatus* asserts that one *is* familiar with material properties through 'sense,' one can see that Wittgenstein felt that simple objects *must* form combinations which produce these material properties. Further, if the sense of a proposition presenting some material property is to be able to do so without depending upon the truth or falsity of any other proposition, then the combination of objects which causes this material property must also exist independently of one another combination of objects. One must conclude that if a combination of objects is to exist independently of any other situation, then the formation of that combination must depend on nothing further than the natures of the objects which constitute it.

If one is going to draw this conclusion, then it must be made clear that Wittgenstein felt that simple objects have it in their nature to form combinations. A good starting point from which to

argue this is the point, made in the *Tractatus* that the world consists of more than just the totality of simple objects existing in isolation from one another.

1.1   The world is the totality of facts, not of things.

While the substance of the world, according to the *Tractatus*, must be simple objects, the totality of these simple objects is not enough to define the world. This proposition asserts that the world is completely described not by sum of all objects, but by all facts. One discovers the meaning of the term 'fact' in proposition 2.

2   What is the case—a fact—is the existence of states of affairs.

A fact, it is said, is the actual existence of one or more state of affairs. This expression 'state of affairs' finds, in turn, explanation in the statement 2.01.

2.01   A state of affairs (a state of things) is a combination of objects (things).

Taken in combination, these propositions assert that the world is completely defined not by simple objects alone, but by their combination in what are called states of affairs. These states of affairs must be the situations of reality referred to up to this point. It is further specified that these combinations of objects consist of objects standing in direct relation to one another. It cannot be that an object occurs in a state of affairs, without a relation pertaining between that object and at least one other in the state of affairs. Just this is asserted in the following proposition, 2.031

2.031   In a state of affairs objects stand in a determinate relation to one another.

Moreover, in designating the relations that pertain between the objects in states of affairs as determinate, it seems that Wittgenstein is indicating that there can be no question as to which objects are connected in what manner. There is no fuzziness with regard to which objects in a state of affairs have a relation pertaining between them, and which do not. A state of affairs must be specific in that some object must stand specifically in relation to a particular other or others, and it must be obvious with which objects the one does not stand in relation. Wittgenstein presents a visualization of a state of affairs which coincides with this reading of 2.031, in the proposition 2.03

2.03   In a state of affairs, objects fit into one another like links of a chain.

It is implied that a state of affairs is not a collection of links, which might stand in a variety of relations to one another, but rather a chain in which specific objects stand in relation to specific others. It is clear which objects are linked, and which are not. The proposition 2.032 goes on to say that the arrangement of objects in relation forming a state of affairs is the structure of the state of affairs.

2.032   The determinate way in which objects are connected in a state of affairs is the structure of the state of affairs.

It has already been seen in the discussion of material and internal properties, that the structure of a state of affairs is determined by the internal properties of the objects that constitute that state of affairs. This is echoed in the comment of 2.0124, that if all objects are given, then all the internal properties which determine the possibilities of combination for these objects are also given. In this way, all of the possible states of affairs, or combinations must also be specified.

2.0124   If all objects are given, then at the same time all *possible* states of affairs are also given.

In that the proposition 1.1 states that the world is the totality of facts, and proposition 2 that this is the totality of *existing* states of affairs, then the totality of objects would have to have all possible worlds inherent to it. The reverse of this would also be true in terms of the *Tractatus*, all possible worlds consist of the various combinations of the totality of objects. The previous discussion has revealed that it is in the nature of objects to form states of affairs, and that these states of affairs constitute the world, and indeed, all possible worlds. It must, however, be clarified that Wittgenstein's view is not that all objects must at any given point in time exist in some combination, but rather that each object must have the *possibility* of existing in *some* combination at every point in time. This is a subtle distinction, and presents itself in the following propositions.

2.0141   The possibility of its occurring in states of affairs is the form of an object.

2.011   It is essential to things that they should be possible constituents of states of affairs.

The possibility that an object might form some combination must be in the nature of that object at all times. This entails that it is not the case that an object has to occur in some state of affairs at any given point in time. What must be the case is that at all points in time an object must contain the possibility of occurring in some state of affairs allowed by its internal properties. The subtle distinction between an object existing in combination at some point in time and having the possibility of forming a combination at all points in time is of importance in the following way. If an object did not occur in some combination at one point in time, it could still form a combination at some other point in time and this combination would still be dependent upon the internal properties of the object. However, if an object did not have the *possibility* of occurring in some state of affairs, then if it did come to exist in combination this would be an accidental occurrence. The following propositions affirm that this is the view that Wittgenstein purports.

2.012   In logic nothing is accidental: if a thing *can* occur in a state of affairs, the possibility of the state of affairs must be written into the thing itself.

2.0121   It would seem to be a sort of accident, if it turned out that a situation would fit a thing that could already exist entirely on its own. If things can occur in states of affairs, this possibility must be in them from the beginning. (Nothing in the province of logic can be

merely possible. Logic deals with every possibility and all possibilities are its facts.) Just as we are quite unable to imagine spatial objects outside space or temporal objects outside time, so too there is *no* object that we can imagine excluded from the possibility of combining with others. If I can imagine objects combined in states of affairs, I cannot imagine them excluded from the *possibility* of such combinations.

It is stated in these propositions that if the occurrence of an object in a state of affairs were accidental, then it could not be in the nature of the object to exist in combination with others. What is implied by these propositions is that if it were not in the nature of an object to come to exist in combinations with others, and it did come to exist in some combination accidentally, then it would not be the internal properties of that object that caused it to exist in combination. In other words, if it were not the nature of objects which allowed combinations to exist, then whether a combination could exist would depend upon some factor external to the objects themselves. In that the view of the *Tractatus* is that the world is mind-independent, whatever this external factor might be, it must exist in the logical space of the world. In that the substance of the world is, according to Wittgenstein, simple objects, this external factor must somehow consist of an object or objects external to those in the relevant state of affairs.

This is immensely helpful in explaining why it is only in the case when the existence of a state of affairs relies upon nothing more than the internal properties of its constituting objects that the pictorial relation is capable comparing the sense of the proposition with nothing more than the portion of the world it depicts in such a way that the truth or falsity of the proposition be determinable. It was argued above that if it were not in the nature of objects to form combinations, then if a combination were formed, the existence of this state of affairs would rely upon some factor external to the constituting objects. In that 'sense' has been defined as the truth condition of a proposition, a proposition representing this state of affairs as its sense would have a truth condition which goes beyond the depicted situation itself. The truth condition, what would have to be the case if the proposition were to be true, would have to include whatever factor it was that allowed for the existence of the depicted state of affairs. It seems, however, that a proposition presenting this state of affairs as its sense would not depict the factor which allowed for the existence of the state of affairs. This can be seen because the circumstances resulting from this external factor being included in the sense of a proposition are not in tune with Wittgenstein's views on propositions. If this factor *were* specified in the sense of the proposition, then a further factor would have to be indicated which allowed for the existence of the first factor. This would fall into a regress which would end only when the totality of objects and how they were arranged

52

was indicated in the sense of the proposition. In this case, no proposition could depict just a single situation, it would have to depict the arrangement of the entire world. This is a prospect which clearly does not sit comfortably with the views of the *Tractatus* as they have been propounded. It seems then, that any proposition presenting as its sense a state of affairs whose existence relied upon some factor external to it would not specify what that factor was. This would then undermine the ability of the pictorial relation to act as a means of comparison with the depicted reality of a proposition, such that the truth or falsity of that proposition could be determined. This would be due to the fact that the truth of the proposition would hinge upon an unspecified factor, which would not be up for comparison by means of the pictorial relation.

One can sum up this discussion in the following manner. If the pictorial relation is to be able to serve its purpose of correlating the sense of a proposition with the portion of the world that it represents such that the truth or falsity of the proposition can be determined, then the sense of a proposition must be a complete truth condition. If the sense of a proposition is to be a complete truth condition, then the existence of the state of affairs depicted in that proposition must contain its own possibility of existence. If the depicted state of affairs is to contain its own possibility of existence, then whether the state of affairs could possibly exist can depend on nothing more than the internal properties of the objects that make it up. Thus, it is only under the circumstances in which the state of affairs depicted by the sense of a proposition contains its own possibility of existence, in the internal properties of its constituting objects, that the pictorial relation can correlate the sense of a proposition with the portion of the world that it represents in such a way that the truth or falsity of the proposition can be determined.

Chapter 5

This chapter will address a second requirement which must be met if the pictorial relation is to act as a means of comparison between a proposition and the reality it depicts such that the verity or falsehood of that proposition can be determined. This requirement is that, if the truth or falsity of a *proposition* is to be determined by comparison of its *sense* with reality, then no more than one sense can be represented by a single proposition. This obligation is addressed by Wittgenstein in terms of what he calls logical multiplicity, which he indicates must be shared by a proposition and the situation depicted in its sense. It will be argued that the requirement for shared logical multiplicity indicates that a proposition signify exactly which relations pertain in the situation it represents as its sense. First, a case will be made that the logical multiplicity of a situation is its different representational possibilities within a single sign-language. The following section will contend that it is the relations that pertain in a complex situation that allow for the differing representations that make up the logical multiplicity of the situation. It will then be argued that the requirement for shared logical multiplicity between a proposition and the situation represented as its sense indicates that a proposition must signify exactly which relations pertain in the situation it represents as its sense. Lastly, it will be put forth that the relations which must be specified by a proposition can rightfully be considered distinguishable elements of that proposition.

5.1 Logical multiplicity as representational possibilities

In this section it will be argued that Wittgenstein's notion of logical multiplicity is concerned with the different representational possibilities of a situation in a single sign-language. Evidence will be given from the *Tractatus* that a situation has the possibility of being represented in multiple ways in a single form of language.

It is specified in the *Tractatus* that a proposition and the situation it depicts must have the same number of distinguishable elements, and therefore, have what Wittgenstein calls the same logical multiplicity. This constraint presents itself in the proposition 4.04.

4.04   **In a proposition there must be exactly as many distinguishable parts as in the situation that it represents. The two must possess the same logical (mathematical) multiplicity. (Compare Hertz's *Mechanics* on dynamical models.)**

It must first be noted that this statement indicates that Wittgenstein considers mathematical multiplicity and logical multiplicity to be one in the same thing. As a matter of consistency, the concept will from here out be referred to as logical multiplicity. Previous exposition has revealed that a proposition, which is necessarily a picture, does not contain its sense, the situation that it represents, but only the possibility of that sense. Wittgenstein is, therefore, indicating in 4.04 that a picture or proposition must have the same number of elements as its sense, which must result in the proposition having the same logical multiplicity as the depicted situation that is its sense. What this logical multiplicity is, in terms of the *Tractatus* will be explored in this section. It can only then be seen how a proposition and the situation depicted by its sense can share the same number of distinguishable elements.

The statement 4.0411 helps one to begin to understand the concept of logical multiplicity.

4.0411   **If, for example, we wanted to express what we now write as '(x).fx' by putting an affix in front of 'fx' – for instance by writing 'Gen.fx' – it would not be adequate: we should not know what was being generalized. If we wanted to signalize it with an affix '$_g$' – for instance by writing '$f(x_g)$' – that would not be adequate either: we should not know the scope of the generality-sign. If we were to try to do it by introducing a mark into the argument-places – for instance by writing '(G,G).F(G,G)' – it would not be adequate: we should not be able to establish the identity of the variables. And so on. All these models of signifying are inadequate because they lack the necessary mathematical multiplicity.**

This statement demonstrates that generalization requires an understanding of all of the possible occurrences to which a generality applies. For instance, the example Gen.fx does not indicate whether the generality sign (Gen) applies to the property f or to the individuals x. Due to this ambiguity, one could not come to an understanding of all instances in which the generality was

supposed to apply. Similarly, the generalization $f(x_g)$ would not be an appropriate generality, because one would not be able to establish what the range of items is that might take the place of x. In this way, one would again, not be able to understand all of the possible occurrences to which the generality intends to apply. The last generalization, $(G,G).F(G,G)$ also does not allow this understanding by failing to identify the type of variables. All of these failed examples of generality are similar in not allowing one to be able to understand the multiplicity of occurrences to which they might, logically apply. The necessary multiplicity must then refer to the totality of logically possible instances indicated by a specific symbolism. Logical multiplicity could then be considered to be the number of logically possible instances for which a statement is applicable.

If, in the context of 4.04, a picture and its depicted reality must have the same logical multiplicity, then each must be valid for the same number of logically possible instances. It is not immediately clear what is meant by the statement that a picture and a situation in reality can be valid for a certain number of instances. A hint to the meaning is given in the reference to Hertz's dynamical models. As one can gather from the word 'dynamical,' such a model is changeable, it is representable in multiple forms[13]. Perhaps the logically possible instances referred to above are the logically possible forms of the representation of a situation. To consider the logical multiplicity of a situation, either existing in reality or depicted in a picture, to be the number of logical forms in which it can be represented seems to accord with the nature of sign-languages presented in chapter one.

A picture, it was said, can be represented in many ways, such as the gramophone record, the score and the heard symphony referred to in proposition 4.0141. As these various forms of representation are translatable into one another, so must all the logically possible portrayals implied by logical multiplicity be translatable. There must exist an internal relation between all of the possible depictions, such that one can be translated into another. What is more, this internal relation exists out of necessity, since it is required that translation be possible from any given sign-language into any other. The proposition 4.014 describes this internal relation as existing necessarily between various modes of representing the same situation.

4.014   **A gramophone record, the musical idea, the written notes, and the sound-waves, all stand to one another in the same internal relation of depicting that holds between language and**

---

[13] The thought that models stand in internal relation to one another, such that each is equally a model of all others which can represent a specific system is attributed to Hertz by Griffin (1964) pages 100-101

the world. They are all constructed according to a common logical pattern. (Like the two youths in the fairy-tale, their two horses, and their lilies. They are all in a certain sense one.)

If one is to consider logical multiplicity to be the totality of logically possible representations of a situation, then each of these models of the situation must be translatable into any of the others. The logical multiplicity of a situation, while it may not be identical to the internal relation between the multiple depictions, is inextricably tied to this internal relation. The logical multiplicity of a situation is what might be called a property of that situation, a property which is a necessary aspect of the situation. A situation does not have the possibility of having a logical multiplicity in one case and not having one in another. Every situation must have a logical multiplicity inherent to it. The previous discussion of picturing would indicate, then, that logical multiplicity cannot be picturable. In order to accord with the views of the *Tractatus* as they have been laid out, a picture can only capture that which has the possibility of not pertaining; a description that does not fit logical multiplicity. Logical multiplicity is rather a truth in logical space, something that always pertains, and therefore, whose existence can only be shown in language. Confirming this line of thought is the proposition 4.041.

4.041   **This mathematical multiplicity, of course, cannot itself be the subject of depiction. One cannot get away from it when depicting.**

In that logical multiplicity is a necessary part of logical space, there must be different logically possible representations of any given situation. In the example given in the statement 4.014, one situation allows a multitude of different representational possibilities. Similarly, it must be possible to depict any other situation in multiple ways. However, the various modes of representation cannot refer simply to a translation into each and every valid sign-language, which, it was said previously, must be possible for every given depiction. If this were the case, every situation would have the same logical multiplicity, because there will always be the same number of valid sign-languages. In order that differing multiplicities be possible, there must be multiple ways of modeling any given situation within a single sign-language.

That it is the case that a single sign-language can allow for numerous representations of any situation becomes clear in considering Wittgenstein's cryptic reference to idealists and the seeing

of spatial relations. In proposition 4.0412, it is indicated that the idealist view on spatially existing situations cannot account for the multiplicity of spatial relations.

4.0412   For the same reason the idealist's appeal to 'spatial spectacles' is inadequate to explain the seeing of spatial relations, because it cannot explain the multiplicity of these relations.

This statement decidedly requires enlightenment. It is known that the idealist view does not consider the world to be independent of the mind. Thus, the spatial relations seen could also not exist independently of the mind. Spatial relations are in a way, constructed in the mind of the viewer. That they are seen depends upon the viewer looking in a particular way, through 'spatial spectacles.' How Wittgenstein felt this view to not answer for a multiplicity of spatial relations is not clear. Likewise, it is as yet unclear what a multiplicity of spatial relations might entail. Assistance in understanding the above proposition comes in the form of another proposition, namely 5.5423.

5.5423   To perceive a complex means to perceive that its constituents are related to one another in such and such a way. This no doubt also explains why there are two possible ways of seeing the figure as a cube; and all similar phenomena. For we really see two different facts. (If I look in the first place at the corners marked _a_ and only glance at the _b_'s, then the _a_'s appear to be in front, and vice versa).
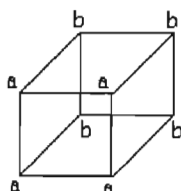
Whether one sees the _a_'s in front or the _b_'s, results in the seeing of two distinct complexes, two facts, as Wittgenstein says. To view this complex in two distinct manners is to represent to oneself the spatial relations existing between the corner-objects, the _a_'s and the _b_'s differently. In each of these distinct representations, nothing changes about the corner-objects themselves, but only the manner in which they are seen to be related; the relations have different directional extensions in space. In this way, the relations themselves are dependent upon the viewer of the complex. Similarly for the idealists, spatial relations must be observer-relative, since they do not

exist independent of a mind. Wittgenstein's assertion that spatial relations have a multiplicity seems to be linked to the view, which he has already been shown to hold, that the world exists independent of any viewer. If the cube depicted above were to be a physically existent complex object, then Wittgenstein would have to say that viewing it from one side and then walking around to view it from the other would not result in seeing two different objects. Rather, one would be seeing the same object, whose spatial relations appear, then, differently. To advance this point, consider holding a cube such that two diagonally opposite corners are lined up exactly with one another. In this case, the cube actually appears as a pyramid. To view the cube as a pyramid must be an equally valid representation of the spatial relations existing between the corners. Nothing, however, has changed about the complex object, the cube, which exists independent of any viewer.

It now seems understandable what Wittgenstein means by the idealists not being able to account for the multiplicity of spatial relations. Spatial relations appearing differently, for the idealists, would result in distinct spatial situations. For Wittgenstein a spatial situation exists independently of any viewer, and thus must have inherent to it the multiplicity of representations of the spatial relations between its constituents. Each of these representations is equally valid, since each is logically allowed by the existence of the independent complex.

The consideration of Wittgenstein's view that spatial relations have inherent to them a certain multiplicity seems to confirm the view that logical multiplicity is indeed concerned with different representational possibilities within a single sign-language. Evidence given from the *Tractatus* indicates that one is not misled in believing that Wittgenstein felt that a situation has the possibility of being represented in multiple ways in a single form of language.

5.2 Relations and logical multiplicity

This section will argue that the notion of the logical multiplicity of a situation as its representational possibilities indicates that it is the relations that pertain between the objects of a situation that are the most important part of a depiction. It will first be argued that the logical multiplicity of a situation is not the number of representations possible for it, but the actual

distinct representations themselves. It will then be argued that it is the relations between the objects in a complex situation that allow for a multitude of representational possibilities for that situation.

In the previous section it was indicated that the perspective from which a spatially complex situation is viewed changes the *representation* of that situation, but not the situation itself. It seems that there are infinitely many points of perspective from which any given spatial situation can be viewed. Thus, if logical multiplicity were considered to be the number of different representations possible, then the logical multiplicity of every spatial complex would be the same, in approaching infinity. Such a view would render the notion of logical multiplicity unhelpful for the purposes of the *Tractatus*. It appears much more useful to consider the logical multiplicity of a situation to be the multitude of actual representations possible for that situation.

It has just been seen that the logical multiplicity of a spatially complex situation, a cube, is determined by considering the various ways in which the cube can logically be viewed and represented. As was indicated, Wittgenstein considered the multiplicity of the different representations of the cube to be a multiplicity of the relations that pertain between the objects which make up the cube. Understanding this is of immense importance for appreciating the significance of the requirement of a shared logical multiplicity for propositions and the situations they depict.

The preceding exposition of the views put forth in the *Tractatus* should make it clear that a proposition or picture presenting a situation is asserting that the objects it depicts stand in certain specific relations to one another. It is not asserting the existence of the objects themselves. Thus, the relations that pertain in the cube discussed above are just as important an aspect of the cube as the objects which make up its corners. It will be contended that it is the relations which pertain in a spatially complex situation, and not the objects, which influence the logical multiplicity of that situation.

Consider the cube, given in proposition 5.5423 as an example of a spatially complex situation.
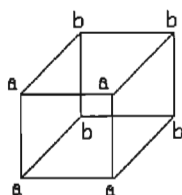
When the *a*'s are regarded as being in front, the cube appears to be angled to the right. Now, if this cube were a fixed situation in space, it would be possible to move around the cube in three-dimensional space, and at certain points, it would appear as if the same cube were angled to the left. Representations of the cube as angled to the left and to the right would be equally valid. However, in each representation, nothing changes about the objects, the *a*'s and *b*'s making up its corners. What changes is how they are seen to relate to one another. What must change with each and every representation of any spatially complex situation is how the relations between the objects are portrayed. There are infinitely many perspectives from which any spatial situation can be viewed, and it is the relations, not the objects, which will appear differently from every point of view. It is in this way that it can be understood that it is the relations in a spatial situation which allow that different representations might be possible for that situation.

This example has shown that spatial relations allow for there to be differing representations of spatial situations, and therefore, a logical multiplicity for each situation. One must consider whether the same is true of other types of non-spatial relations. The example of musical representation that Wittgenstein gives in his propositions 4.014 and 4.0141 is a helpful one, for the notes of music stand in relation to one another in a non-spatial manner. An enlightening instance of notes having relations pertain to them is to consider a scale, take for example the minor pentatonic scale. A pentatonic scale is a series consisting of a repetition of 5 different tones or notes, such as the series of notes C D♯/E♭ F G A♯/B♭ C. It is up for consideration whether the relations that pertain between these notes influence the logical multiplicity of the musical situation presented by the series.

That it is the case that the relations influence the logical multiplicity is pointed to by the notion of musical transposition. The above series of notes can be transposed in to many different keys, such as the key of B, given by the series of notes B D E F♯/G♭ A B. What allows this to be an equally valid representation of the minor pentatonic scale is that the notes stand in the same relation to one another as in the first series presented. In each case, the series of notes is the

61

embodiment of a certain series of steps up the chromatic scale. The note C stands to D♯/E♭ in the same relation that B stands to D, namely, that the latter of each pair is one and a half steps up the chromatic scale from the former. The series of steps carries on from one and a half steps to one step, followed by another full step, one and a half steps from that point and then another one step up the scale. Thus the series of notes C D♯/E♭ F G A♯/B♭ C, as well as every other transposition of this, is the embodiment of the series 1 ½, 1,1,1 ½, 1 steps up the chromatic scale. Similarly, if a note in one octave is considered a distinct 'object' from the same note in a different octave, then the relations between the notes in this series allow that it can validly be represented in the sign-language of written notes by the same series in all possible octaves. Any series of notes standing in the given sequence of relations to one another must be a valid representation of the minor pentatonic scale in the single sign-language of written notes. This example has shown that the non-spatial relations found in a musical situation allow for different possible representations, and thus, for a logical multiplicity of this non-spatial complex situation.

Examples of both spatial and non-spatial situations have been given, and it has been demonstrated that in each form of situation, a differing number of representations are made possible by the relations that pertain in the situations. While the logical multiplicity of each situation is not the number of valid representations of that situation, but the actual different depictions possible, this logical multiplicity is a result of relations pertaining between the objects in each situation.

5.3 Shared multiplicity and a single sense

In this section it will be argued that the requirement for shared logical multiplicity between a proposition and the situation represented as its sense indicates that a proposition must signify exactly which relations pertain in the situation it represents as its sense. Only in this way will it be possible for a proposition to represent no more than one sense, such that the truth or falsity of the proposition can be determined through the comparison of its sense with reality via the pictorial relation.

One is brought to the discussion of what must be shared by a proposition and the situation which is its sense because of the assertion made by Wittgenstein, that a proposition does not contain its sense. The proposition 3.13, addressed in chapter two, indicated that a proposition contains only the possibility of representing its sense, though it does not contain the sense itself. The proposition 3.12 indicates that a proposition is a sign, which can represent a sense, when the proposition stands in correlation to the world via the pictorial relation.

3.12   I call the sign with which we express a thought a propositional sign. – And a proposition is a propositional sign in its projective relation to the world.

What Wittgenstein says must be shared between the propositional sign and the situation depicted by the sense of that proposition is logical multiplicity. As the first section of this chapter revealed, logical multiplicity can be read to be the different possible representations of a situation within a single sign-language. Thus, to say that the sign of a proposition and the situation depicted by the sense of that proposition must have the same logical multiplicity, as Wittgenstein does, is to say that both must indicate the exact same possible representations. This seems an obvious consequence of the desire, expressed throughout the *Tractatus,* that a proposition indicate, through its sense, a specific situation which might pertain in reality.

However, the exploration of the notion of logical multiplicity uncovered a further requirement which must be placed on situations which share this multiplicity. It was argued in the second section of this chapter that it is the relations pertaining in a situation that allow for the different representations that make up the logical multiplicity of the situation. Therefore, it seems that requiring that the propositional sign and the situation depicted by the sense of that proposition have the same possible representations demands that each indicates the exact same relations to pertain between the objects in the possible situation. The result of this reading of logical multiplicity is that the sign of a proposition must, somehow, determine which exact relations pertain in the situation represented by its sense.

Evidence that this reading is not far off of what Wittgenstein must have believed comes from the discussion of generalized propositions. Any proposition that did not present a specific relation pertaining in its sense could at best only present a variable of which the particular relation could be one instance. This idea was put forth in the proposition 3.315 discussed in chapter three,

which stated that when one of the parts of a proposition is replaced with a variable, one is left with a class of propositions of the same form. A generalized proposition, in this way, is incapable of representing a sense, which must be a specific situation in logical space. It can contain only the possibility of representing several senses of the same form. One again reaches the conclusion that if a proposition is to present a single sense, then the exact relations to pertain in the sense of that proposition must be represented in order that the proposition not be of a generalized form.

5.4 Relations as distinguishable elements

This section will argue that the relations which the previous section indicated must be specified by propositions, are distinguishable elements of those propositions. As this indicates that these relations must have reference in reality, objections to such a view will be discussed. It will then be argued that these objections pose no difficulties for the reading of the *Tractatus* that has been given.

In so far as the specific relations pertaining in the possible situation which is the sense of a proposition must, somehow, be specified in the propositional sign, these relations are an integral part of the truth-condition of a proposition. It must be possible, given this reading of the *Tractatus*, to determine that a proposition is false if the same objects that it represents stand in a relation different to the relation depicted in the proposition. In this way, the relations which pertain in a situation must, on this reading of logical multiplicity, be considered distinguishable elements in the situation.

The explanation of logical multiplicity above already began to hint at the conclusion that relations are distinguishable elements in a situation when it indicated that the same relations can be held by different sets of objects. The example given in the previous section of different sets of musical notes being able to hold the same relations is a case in point. Spatial relations, examples of which abound in the *Tractatus,* are similarly capable of being held by distinct sets of objects. A chair and a table can stand in a spatial relation of being one meter distant from one another, as can two human beings. Given the proposition that two specified human beings are standing one meter

apart from one another, it must be possible to discriminate between the two human beings and the spatial relation of one meter. The proposition must be equally false if either of the two human beings is not a part of the corresponding situation in reality, or if the relation is different from the one specified, say one and a half meters rather than the indicated one. In that each of these elements can be scrutinized independently of the others, they are distinguishable elements. Each part of the potential situation presented by a proposition, including the relation asserted to pertain, must be correlated with reality via the pictorial relation. That Wittgenstein felt that each element of a picture corresponds via the pictorial relation is indicated in the proposition 2.1514.

2.1514   The pictorial relationship consists of the correlations of the picture's elements with things.

The inference to be made here is that the relations presented in the potential situations signified by propositions have counterparts in reality, in order that the truth or falsity of propositions be determinable. It is argued by Peter Carruthers that the fact that a relation might have a reference in the world raises a difficulty with regard to what that reference might be.[14] In brief, he raises objections to both the possibility that what correspond to reality might be a specific instance of a relation and the possibility that the reference be a general relation. He notes that if what was to be correlated with the world were a specific instantiation of a relation, then if that relation did not exist in reality, then a proposition representing it would not refer to anything. If this were the case, then a proposition could not be false while retaining a meaning. In chapter two it was already indicated that the *Tractatus* requires that a picture, and therefore, a proposition must have the possibility of representing falsely, while still having meaning. If a relation presented in a proposition were to be a general relation, Carruthers argues that this relation might exist independently of the objects between which it pertains at any given moment. In this case, if it were to pertain between two objects, another relation would be required to relate the relation and those objects. If this second relation, in turn, were also to be of a general nature, then yet another relation would be necessary to relate it to the objects and the other relation, threatening a regress[15]. If, on the other hand, this second relation were to be a specific instantiation of a relation, one would be left in the first quandary described.

---

[14] Carruthers (1989) pages 160-161
[15] This seems to be an example of Bradley's regress, well described in Hylton (1990) pages 48-49

While the critique offered by Carruthers appears valid for the instances it describes, it does not seem to present any difficulty to the *Tractatus* as it has been portrayed. As it has been argued that one relation might be held by different sets of objects, the critique offered against relations as particular instantiations does not seem to apply. The relations which might act as a reference in the world for tractarian propositions are closer to the general types of relations discussed above. However, there is no indication that a relation, even of a general type must have the possibility of existing independently of the objects between which it pertains. As states of affairs were described in chapter four, the relations which pertain in them are solely manifestations of the internal properties of the objects which make up the states of affairs. Relations come into existence because of the natures of the objects amongst which they pertain, they do not have a separate existence. This in no way precludes a relation from having the possibility of being held by a distinct set of objects, so long as it is in the natures of those objects to hold this relation. In that the *Tractatus* does not indicate, and indeed points to the contrary, that relations have the possibility of existing independently of the objects between which they pertain, the tractarian relations are not threatened by a Bradleyan regress.

To consider relations as having reference in the world raises no specific difficulties for this reading of the *Tractatus*. Thus the case remains solid that the *Tractatus,* as it has been presented, requires relations to be distinguishable elements in a proposition. In being distinguishable elements of a proposition, the demand remains that a proposition must specify which exact relations pertain in the situation presented as its sense.

Summary

There are two goals that I hope part two of this thesis has achieved. Firstly, I believe part two to have demonstrated that the *Tractatus* answers to the demands which must be met if the pictorial relation is to act as a means of comparison between a proposition and reality, such that the truth or falsity of that proposition is determinable. Secondly, I hope to have shown that a unique reading of logical multiplicity is both possible and insightful in terms of the *Tractatus*.

With regards to the first goal mentioned above, two lines of argument in chapter four answer to the demand that for the determination of the truth or falsity of a proposition, the sense of that proposition be correlated with nothing more than its depicted situation in reality, such that the pictorial relation can serve its purpose. The first section gave the requirement for simple objects as Wittgenstein's resolution to the problem that the sense of a proposition might depend upon the truth or falsity of another proposition. The second section put forth that the account of simple objects given in the *Tractatus* allows that a state of affairs depicted in the sense of a proposition contain its own possibility of existence, so that the sense of a proposition must be correlated with nothing more than the appropriate state of affairs in reality in order to determine the truth or falsity of the proposition. Chapter five accomplished the objective of demonstrating that if a proposition is to represent no more than one sense, such that the truth or falsity of a *proposition* can be determinable by the correlation of its *sense* with reality via the pictorial relation, then the exact relations which pertain in the situation depicted in the sense of a proposition must somehow be signified in the propositional sign.

Regarding the second aim of part two of this thesis, I believe chapter five to have provided sufficient evidence that one is justified in giving an alternative reading of the tractarian notion of logical multiplicity as the distinct representations possible for a situation in a single sign-language. This reading highlights the central role that relations play in both the states of affairs in reality and in those presented as the senses of propositions. It also indicates first, the need to count these relations as distinguishable elements in a situation and second, that to do so is unproblematic for the text. I feel that the advantage of this reading is that it delineates the demands that the text places on itself, and points to how these demands might be met, rather than attempting to unify a reading of the work based on pre-established views on the status of objects.

Part 3

Parts one and two have established what the demands are that the *Tractatus* places on itself. Part three of this thesis will be concerned with the implications that these demands have for the work. Chapter six will handle the topic of whether the *Tractatus* is able to meet the requirement that a proposition depict exactly which relations pertain in the situation represented in its sense. The conclusion will be reached that the *Tractatus* cannot meet its own demands, for the work does not lend an account by which elementary propositions, to which all propositions must be analyzable, can represent specific relations. In chapter seven it will be explored what the implications of the demand for the specification of relations in a propositional sign are for the conception of elementary propositions as independent of one another. It will be argued that there are an infinite number of relations which must be representable in elementary propositions, and that these relations can be mutually exclusive in nature. This brings about the result that the elementary propositions which represent these relations cannot be independent. It will then be argued that the non-independence of elementary propositions results in the inability to display logical necessity, which an account of independent elementary propositions allowed for. The final thought in this section is that the conception of elementary propositions as non-independent introduces the idea that there is an alternative mode of description for the world to the one given in the *Tractatus,* one that is more suited to the aims of the work.

Chapter 6

This chapter will revolve around the issue of if and how the *Tractatus* meets the requirement, specified in chapter five, that a proposition depict exactly which relations pertain in the situation represented in its sense. The first concern will be to give Wittgenstein's account of propositions as analyzable into elementary propositions, which consist of no more than names in immediate combination. It will then be argued that elementary propositions are incapable of representing the infinity of distinguishable relations with spatial relations between the names it presents. The final section will argue that to account for the specification of relations by considering relations amongst the simple objects of the world does not accord with the views of the *Tractatus* as they have been presented. The conclusion to be drawn from this chapter must be that, in so far as the *Tractatus* has been portrayed as requiring of itself that the specific relations pertaining in states of affairs be representable in a propositional sign, the work is unable to meet its own demands.

6.1 The analysis of propositions

This section will act as an exposition of Wittgenstein's views on propositions. This exposition will be the starting point from which to discover whether the tractarian conception of propositions is capable of meeting the requirement uncovered in chapter five, that a proposition must somehow depict the relations contained in the situation which is its sense. It will be shown that the *Tractatus* conceives of propositions as representing potentially complex situations. It will then be put forth that these composite propositions are analyzable into elementary propositions. It will then be revealed that the tractarian characterization of elementary propositions indicates that they are no more than combinations of names.

The account of propositions given up to this point has described propositions as pictures of reality. The tractarian view of the purpose of a picture, which must be likewise for a proposition, is given in the statement of 2.11.

2.11 A picture presents a situation in logical space, the existence and non-existence of states of affairs.

It has also been seen that a proposition presents possible states of affairs through its having a sense. The discussion of the 'sense'-'reference' distinction revealed that the sense of a proposition cannot represent anything other than a situation in logical space, it cannot simply assert the existence of objects, it must indicate that the objects it portrays stand in relation to one another. It must also be remembered that a proposition, as was revealed in the last chapter, only contains a sign, which has the possibility of expressing its sense. Evidence exists to support the view that a proposition can represent a sense because it has the possibility of expressing a situation which might or might not pertain in the world. Taken in combination, propositions 3.14 and 3.142 indicate that it is through a propositional sign, which is a fact, not simply a collection of names, that a proposition can have the possibility of representing a sense.

3.14 What constitutes a propositional sign is that in it its elements (the words) stand in a determinate relation to one another. A propositional sign is a fact.

3.142 Only facts can express a sense, a set of names cannot.

Given that a sense is a possible state of affairs that might exist in reality, a propositional sign, in expressing a sense, must have its elements related in such a way that they represent the objects of reality standing in some logically possible state of affairs. It is asserted that names in and of themselves cannot express a sense. While names must refer to objects in the world, a sense expresses that the objects referred to by names exist in a possible state of affairs through these names being related in a specific and determinate fashion.

In the manner that propositions have been portrayed thus far, it has been said that they must present situations, however, it has not indicated what the level of complexity of situations that can be depicted is. As the statement 2.11 implies, a picture and thus a proposition can represent more than just a single state of affairs. It seems that the situations represented by propositions can include multiple states of affairs, more complex situations. That this might be the case is also indicated by the proposition 3.24 discussed previously. It states that a proposition can represent a complex, and that the structure of a proposition representing a complex stands in internal relation

to the structure of a proposition concerning a constituent of that complex. In saying that a constituent of a complex situation can likewise be represented in a proposition indicates that this constituent is itself a situation, for otherwise it would not be possible to depict it in a proposition.

The implication of this discussion is that Wittgenstein must have felt his propositions to be analyzable into propositions representing less complex situations. This is supported by his statement that there is a certain group of propositions which he considers to be the simplest possible propositions. Those are what he calls elementary propositions in the statement 4.21.

4.21 **The simplest kind of proposition, an elementary proposition, asserts the existence of a state of affairs.**

In order to be consistent with the contention of the *Tractatus*, that a proposition can only present one sense, Wittgenstein would have to say that any proposition subject to analysis into one or more elementary propositions could only have one final analysis. A proposition representing a complex cannot, in keeping with the principles of the *Tractatus*, potentially be analyzed into different sets of elementary propositions. If this were the case, the composite proposition could be ultimately analyzed into distinct sets of elementary propositions, presenting different states of affairs, and, thereby, allowing that the composite proposition could represent different senses. If a proposition can express only a single sense, as required, it can only have one ultimate analysis, and the statement 3.25 confirms this.

3.25 **A proposition has one and only one complete analysis**

Upon analysis of a composite proposition, one must be left with a single set of the simplest possible propositions, elementary propositions. It seems that through these elementary propositions, in that they represent states of affairs, the objects which stand in combination with one another must be presented. Proposition 3.201 suggests that a proposition presenting these simple objects must be one of the ultimately simple propositions, an elementary proposition.

3.201   I call such elements 'simple signs', and such a proposition 'completely analysed.'

It must, however, be confirmed that Wittgenstein intended the simple signs that he referred to here to act as representatives of objects in elementary propositions. Decisive evidence for this is found in the propositions 3.202 and 3.22, in combination.

3.202   The simple signs employed in propositions are called names.

3.22   In a proposition a name is the representative of an object.

It should be clear that Wittgenstein felt that it is through elementary propositions that the world is ultimately represented. This accords with his view that the world consists of states of affairs, which find representation in elementary propositions. Thus, it must be elementary propositions which have to meet the requirement, given previously, that a proposition must depict the relations contained in the situation depicted by its sense. For this reason, the characterization that Wittgenstein gives of elementary propositions is of central importance to the *Tractatus*. It is in the proposition 4.22 that Wittgenstein gives his most complete description of elementary propositions.

4.22   An elementary proposition consists of names. It is a nexus, a concatenation, of names.

Elementary propositions, it is asserted, consist solely of combinations of names. It must be seen if and how such an elementary proposition is capable of representing which exact relations pertain in the situation depicted by its sense.

6.2 The representation of relations

The task of this section is to ascertain whether the requirement that relations in elementary propositions be specified can be met by these relations being represented by relations between words rather than with words themselves. It will be argued that this account is insufficient to meet the demands of shared logical multiplicity given in this reading of the *Tractatus*.

The view that the relations between the objects of reality are represented by relations pertaining between the names in an elementary proposition is one supported by, amongst others, Irving Copi and Elizabeth Anscombe[16]. In short, the position is that any relation between objects in reality can be represented by some spatial relation pertaining between the names representing those objects in elementary propositions. This clearly seems to be the view propounded in the *Tractatus*, as made obvious in the proposition 4.0311, which explains the construction of an elementary proposition.

4.0311   One name stands for one thing, another for another thing, and they are combined with one another. In this way the whole group—like a tableau vivant—presents a state of affairs.

Wittgenstein makes it just as clear in the proposition 3.1431 that it is spatial relations amongst names that represent the relations between objects in reality.

3.1431   The essence of a propositional sign is very clearly seen if we imagine one composed of spatial objects (such as tables, chairs, and books) instead of written signs. Then the spatial arrangement of these things will express the sense of the proposition.

Both of the above propositions appear to make known that names only have the possibility of standing in spatial relations to one another, and these relations will represent the relations of reality. Therefore, the arrangement of the names '*a*' and '*b*' in the form ^a_b might be said to represent the situation that *a* is on top of *b*. All relations amongst objects in reality must, in other words, be representable by the spatial arrangements of names, whether the actual relations themselves are spatial in type or not. That it might be the case that a spatial relation between

---

[16] See Copi (1958) and Anscombe (1959).

names could represent a non-spatial relation in reality does not disagree with the doctrines of the *Tractatus*. In chapter three it was discussed that the signs used in propositions have arbitrarily determined meanings. It follows that the representations of relations might also have their meanings determined arbitrarily, such that a certain spatial relation could be said to stand for a certain other non-spatial relation in the world.

What does seem to pose a problem for the *Tractatus,* it will be argued, is that the spatial arrangements of names cannot account for the infinity of relations that might pertain in reality. The thought behind this is that the representation of each specific relation that might pertain in reality must be distinguishable from all others such that a proposition can make known which exact relations pertain in the situation it represents. Again, this is the demand of logical multiplicity.

One might contend that it could indeed be possible to represent all relations spatially, that one would not require an infinity of spatial arrangements to do so. The argument might be that since the relations that pertain between objects are a result of the internal properties of objects, which objects are represented, taken along with their spatial arrangement, would indicate the exact relations that pertain. It will be argued that this cannot be the case, since objects must have the possibility of holding different relations, if the world of which objects are the substance is to be limited, as it is asserted in the *Tractatus.*

It will first be argued that if the world is to be limited, then any one object must have it in its nature to hold an infinity of distinct relations of the same type. A spatial example is most useful to this end. Consider that a cube can have many different dimensions, for example, its sides could have a length of three centimeters, four centimeters, twenty meters, etc. Any object which has the possibility of occurring in a cube must be able to hold a straight spatial relation of any given length to any other object which can similarly occur in a cube. It must be possible for each object to have relations of different length pertaining to it for the following reason. If an object could only hold a spatial relation of a specific length, then every cube of a different dimension must consist of a different set of objects, which allow for the relation of that specific length. The possibilities for different cube dimensions approaches infinity, which would have to result in there being infinitely many objects in the world. This does not accord with the assertion in the *Tractatus* that the world is a limited whole, as established in chapter two. Further, it cannot be said that it is possible for the dimensions of a cube to approach infinity only in a scale

74

representation of reality, but not in reality itself. This would have to require that there be objects, which might hold relations of length approaching infinity, which can possibly occur in pictures, but which cannot be found in reality. This would be disallowed, for such objects occurring in a picture would have no reference in the world, and the picture would not have the possibility of representing falsely. The argument here is the same as that presented in chapter five against the possibility of a specific instantiation of a relation being that which corresponds to reality. The conclusion to be drawn from the above argument is that any object which might occur in a spatial complex, such as a cube, *must* be able to have spatial relations of differing lengths pertain to it.

It is not a stretch to apply the same argument to objects of the non-spatial variety. While not an ideal example of a non-spatial object, a musical note is again, a helpful example. If C can stand to D♯/E♭ in a relation of one and a half steps up the chromatic scale, it is necessarily also able to stand in relation of two and a half steps up the scale to F. One must be drawn to the conclusion that there are infinitely many relations, of both spatial and non-spatial character, which require distinguishable representation in elementary propositions. The problem for the *Tractatus* is that this infinity of distinguishable relations is simply not representable in the limited symbolism of spatial relations between names in an elementary proposition. Such a symbolism might be able to account for different types of relations, for example a b representing 'a' being separated from 'b', and perhaps even a b representing that 'a' and 'b' are separated by a greater distance than a b. However, it is infeasible that such a symbolism be able to account for the *infinity* of relations which require distinguishable representation. Thus, the account of relations as representable by spatial relations in elementary propositions does not meet the demands that a shared logical multiplicity places on these propositions.

6.3 Do tractarian objects include relations?

In this section the other possibility open to the *Tractatus* for the representation of relations in elementary propositions will be explored. The alternative possibility for the representation of

relations is that the objects of the *Tractatus* might include relations[17], such that these relations can be specified in an elementary proposition through the names that it presents. It will be argued that to consider relations to be objects does not accord with the doctrines of the *Tractatus* as they have been advocated in this reading.

It has been widely argued that Wittgenstein, in the *Tractatus*, does not admit that relations might be considered objects. Amongst the proponents of such a view are, again Copi and Anscombe, James Griffin, Peter Carruthers, Wilfred Sellars and Yiwei Zheng[18] all of whom give compelling arguments for this point of view. Each of these authors relies heavily on textual evidence, often from sources outside of the *Tractatus* itself. While such an approach has tremendous value, this section will be concerned simply with demonstrating that to consider relations as objects does not fit the reading of the *Tractatus* given in this thesis.

Again, the thought is that if relations are objects, then they can be named and if they can be named, then they can be represented in elementary propositions by simple signs. In this regard, it will be helpful to look at Wittgenstein's notion of a simple sign, in order to determine whether it would be appropriate to consider that a relation might be represented by one. Proposition 3.23 lends valuable insight.

3.23   The requirement that simple signs be possible is the requirement that sense be determinate.

The requirement that 'sense' be determinate is addressed in the first section of chapter four. In brief, to require that 'sense' be determinate is to say that the sense of one proposition cannot depend upon the truth or falsity of any other proposition. In order to meet this condition, Wittgenstein argued for the existence of simple objects to form the substance of the world. This understanding is helpful for the reading of 3.23. If Wittgenstein believes that simple signs allow

---

[17] The idea that relations might be considered objects goes against the Fregean distinction between object and concept, for a relation on Frege's view falls into the concept category. This view is given in his work 'On Concept and Object' (1892). See Geach (1952) pages 42-55.

[18] Zheng offers an interesting resolution, that relations, while not objects, are modes of configurations of objects in elementary propositions. This view does not fit in with the reading of the *Tractatus* given here, as this reading does not acknowledge modes of configuration, but rather insists that the occurrence of a relation in a situation is wholly dependent upon the natures of the objects between which it pertains. See Zheng (1999).

for the determinacy of 'sense,' as is clearly stated here, then he must feel that simple signs are the representatives of the simple objects which form the substance of the world.

Given this, there are two arguments to show that the idea of a relation as making up part of the substance of the world does not easily fit with the views of the *Tractatus* as they have been propounded. The first concerns the appreciation of the fact that this reading of the *Tractatus* requires that there be infinitely many distinctly representable relations. If relations were simple objects, the result would have to be that there would be infinitely many simple objects forming the substance of the world. This idea does not sit comfortably with the tractarian conception of the world as a limited whole, as described in chapter two.

The second, and more powerful argument centers on Wittgenstein's views on the nature of the ultimately simple objects of the world. It can be remembered from chapter four that the tractarian conception of simple objects is that they are in possession of internal properties, which determine the relations that they might hold. If relations were simple objects, then they must similarly have internal properties determining the combinations in which they might occur. This does not accord well with the idea that has been presented multiple times, that a relation's pertaining between objects is dependent upon nothing more than the natures of the relevant objects. If a relation itself had internal properties influencing its occurrence in combinations, it would have a character on par with the objects between which it pertains. In this way, it appears that if relations were simple objects, containing internal properties just as the simple objects described previously do, then these relations must have an existence independent of those objects between which they pertain. Evidence in the *Tractatus* confirms that Wittgenstein would have to hold this to be true of relations as simple objects, making up the substance of the world. Consider proposition 2.024.

2.024   Substance is what subsists independently of what is the case.

According to this statement, relations as substance would have to exist in the world as distinct entities, independent of whether they occurred in combination at any given moment in time. In other words, relations would have to exist outside of any combination. This idea is in direct conflict with the view that has been attributed to the *Tractatus* in chapters four and five, that a

relation does not have an existence independent of the objects between which it pertains, for it is a manifestation of the internal properties of the objects which hold it.

While it is admitted that these arguments are not conclusive, they do stand to show that an account of relations as simple objects cannot with any ease be made to fit into the reading of the *Tractatus* that has been given in this thesis. This view cannot, then, be taken to account for the specification of relations in a propositional sign, which, it was said in chapter five, is required. Neither is the account of relations representing relations given in the previous section able to meet the requirement that specific relations be signified. One is left with the result that the *Tractatus*, as it has been exposed in this thesis as making certain demands on itself, is unable to meet those demands.

Chapter 7

This chapter will explore the bearing that the requirement that a proposition depict exactly which relations pertain in the situation represented in its sense has on the tractarian conception of elementary propositions as independent. The first section, in giving an account of elementary propositions as independent, will highlight the importance that independent elementary propositions have in the *Tractatus*, namely that they allow that logical necessity can be displayed. It will then be argued that the demand that exact relations be specified in a propositional sign precludes elementary propositions from independence, thereby preventing logical necessity from being displayed in the manner that Wittgenstein hoped. It will be concluded that reading the *Tractatus* as making the demands it does for the representation of relations reveals that it is both possible and useful to describe the world in terms of degree.

7.1 The tractarian view of independent elementary propositions

The task of this section will be to present the tractarian stance on elementary propositions as independent of one another. Support will first be given that Wittgenstein intended elementary propositions to be independent. It will then be explained that Wittgenstein's notion of independence for elementary propositions entails that they cannot contradict one another. Further, it will be put forth that in their being independent, elementary propositions allow for logical necessity to be shown through a truth table formed of all possible truth-functions with elementary propositions as their truth-arguments.

In the proposition 5.152 Wittgenstein introduces the notion of the independence of propositions by defining that two propositions are independent when they share no truth-arguments.

5.152   **When propositions have no truth-arguments in common with one another, we call them independent of one another. Two elementary propositions give one another the probability of ½. If _p_ follows from _q_, then the proposition '_q_' gives to the proposition '_p_' the probability 1. The certainty of logical inference is a limiting case of probability. (Application of this to tautology and contradiction.)**

The second sentence of this statement indicates that if one elementary proposition exists, then any other elementary proposition will have a fifty-fifty chance of existence; the existence of the second elementary proposition has the probability given to it by pure chance. In this way, one elementary proposition being true does not influence the truth or falsity of any other elementary proposition. While this seems an unequivocal statement of the independence of elementary propositions, it will be seen that other propositions in the *Tractatus* point to elementary propositions meeting the definition given in the first sentence of 5.152. The following statements support this definition.

5   **A proposition is a truth-function of elementary propositions. (An elementary proposition is a truth-function of itself.)**

5.01   **Elementary propositions are the truth-arguments of propositions.**

In combination, the propositions 5 and 5.01 lend the following insight into the tractarian description of elementary propositions. If an elementary proposition is a truth-argument, then, in being a truth-function of itself, any one elementary proposition has only itself as its single truth-argument. In other words, Wittgenstein seemed to believe that any elementary proposition can have only a single truth-argument, and that is itself. In this way, no two elementary propositions can share the same truth-argument. One is brought to the conclusion, given the statement of 5.152, that if no two elementary propositions can share a truth-argument, then each elementary proposition is independent of any other.

Evidence stands in the *Tractatus* that Wittgenstein believed independence to entail that elementary propositions cannot exclude one another. While it is a difficult proposition to understand, 6.3751 offers guidance on Wittgenstein's view on the subject of the independence and non-contradictory nature of elementary propositions.

6.3751 **For example, the simultaneous presence of two colours at the same place in the visual field is impossible, in fact logically impossible, since it is ruled out by the logical structure of colour. Let us think how this contradiction appears in physics: more or less as follows—a particle cannot have two velocities at the same time; that is to say, particles that are in different places at the same time cannot be identical. (It is clear that the logical product of**

two elementary propositions can neither be a tautology nor a contradiction. The statement that a point in the visual field has two different colours at the same time is a contradiction.)

The parenthetical remark made at the end is a useful starting point in the unraveling of this statement. Wittgenstein says that two statements, the first that a point in the visual field has one colour at one point in time and the second that the same point in the visual field has another color at the same point in time contradict one another; one excludes the possibility of the other. He also states that two elementary propositions cannot form a contradiction. The conclusion is that neither of the two statements given above concerning the colour of a point in the visual field is an elementary proposition in Wittgenstein's eyes. In so far as he does not believe statements regarding colour to be elementary, Wittgenstein does indicate that such statements can, in the end, be analyzed into statements concerning the physical structure which determines colour. It seems that analysis must reveal the structure of a situation which can exist or not independently of any other situation, and that it is these independent situations which are represented by elementary propositions.

In so far as a situation represented by an elementary proposition can exist or not exist independently of any other situation, it cannot exclude the existence of any other equally elementary situation. Such considerations seem to have led Wittgenstein to his statement that elementary propositions cannot contradict one another

4.211   It is a sign of a proposition's being elementary that there can be no elementary proposition contradicting it.

That no elementary proposition can have a contrary, is a direct consequence of the requirement that elementary propositions be independent.

While it has been shown that Wittgenstein felt elementary propositions to be independent of one another, and therefore, cannot contradict one another, it is now up for consideration why it is that Wittgenstein held this belief. It will be argued that the demand for independent elementary propositions is a result of the tractarian notion of logical necessity as that which can be shown but not stated. It will be most useful to begin by noting that according to the *Tractatus* the totality of

true elementary propositions composes a complete description of the world. This is given in proposition 4.26.

4.26   **If all true elementary propositions are given, the result is a complete description of the world. The world is completely described by giving all elementary propositions, and adding which of them are true and which false.**

The second sentence of 4.26 implies that one can follow this thought through to say that if all possible elementary propositions are given, then these contain the possibility of describing any possible world composed of the same substance. The totality of elementary propositions entails the totality of possible ways in which the world as a limited whole can be constructed. The case will be made that it is through there being a totality of elementary propositions that Wittgenstein felt that logical necessity can be shown.

First, it must be noted that in Wittgenstein's view, the only necessity to exist is logical necessity. He puts this idea forth in his proposition 6.375.

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

It must be remembered from chapter one, that logic is a reflection of that in the world which is subject to law and these laws cannot be stated in language because they do not have the possibility of not being the case, which is a requirement for something to be picturable and therefore, sayable. Logical necessity, therefore, must be something which Wittgenstein felt could only be shown. That this is the case is reflected in Wittgenstein's assertion that logical necessity is shown through tautology. Taken in combination, the propositions 6.1 and 4.464 expose this view.

6.1   **The propositions of logic are tautologies.**

4.464 A tautology's truth is certain, a proposition's possible, a contradiction's impossible. (Certain, possible, impossible: here we have the first indication of the scale that we need in the theory of probability.)

Logical propositions, in other words, are guaranteed of their truth; they are a reflection of necessity in the world. It can now be seen how logical necessity can be shown, given the totality of elementary propositions[19]. As it was ascertained above, given the totality of elementary propositions, one is also given all of their possible combinations, all possible truth-functions with elementary propositions as their bases. The totality of possible truth-functions of elementary propositions, which can be displayed in a truth-table, entails the description of all possible worlds. The description of all possible worlds is a result of all possible assignments of truth-values to all of the possible combinations of elementary propositions. It must be emphasized that it is only possible to assign truth-values in every possible combination, thereby giving the description of every possible world, because the truth-value of any one elementary proposition does not influence the truth-value of any other elementary proposition. However, given the assignment of every possible combination of truth-values to elementary propositions, there might be certain combinations of elementary propositions forming certain truth-functions, which are true for all assignments of truth-values, in all possible worlds. These are the tautologies that display logical necessity.

The important point to be made here is that it is the independence of elementary propositions that allows for the representation of all possible worlds. It is because of the fact that the truth-value of one elementary proposition does not influence the truth-value of any other, that it is possible to assign truth-values in every possible combination to the totality of elementary propositions. Further, it is only through the representation of all possible worlds that logical necessity can be shown. In other words, if it is going to be possible to *show* logical necessity through a truth-table formed of all possible truth-functions with elementary propositions as their truth-arguments, then there must be elementary propositions which are independent.

---

[19] This argument is a reflection of the views of Carruthers and Griffin. Carruthers argues that the need to display logical truths is a motivation for the requirement of the independence of elementary propositions. See Carruthers (1990) pages 127-130. Griffin argues that Wittgenstein insisted that one must be able to analyze all propositions to the point of independent elementary propositions, such that the structures of the situations represented by their senses do not stand in internal relations to one another. See Griffin (1964) pages 84-86.

7.2 The non-independence of elementary propositions

It will be the purpose of this section to argue that the reading of the *Tractatus* given in this thesis does not allow for logical necessity to be displayed in the fashion described in the previous section. The first contention in this regard is that the infinity of relations which might pertain between the objects in states of affairs can exclude one another, resulting in the non-independence of elementary propositions which represent states of affairs. This will be shown to prevent the representation of all possible worlds in a truth-table, which in turn disallows that logical necessity can be displayed in the manner described in the last section. The final point will be that while this reading of the *Tractatus* does not allow necessity to be shown in the way Wittgenstein hoped, it does lend the insight that it is possible and useful to describe the world in terms of degree.

The discussions in chapters five and six revealed that in requiring that specific relations be displayed as distinguishable elements by a propositional sign, there are infinitely many distinguishable relations, which must be representable. This case is well illustrated by spatial relations, which might be represented in an elementary proposition. There must, according to this reading, be different elementary propositions representing the objects '*a*' and '*b*' standing in a relation of three centimeters from one another, three and a half centimeters, twenty kilometers, etc. In that there are infinitely many relations to be represented, there are infinitely many elementary propositions which can possibly be true. However, the truth of one of these elementary propositions must exclude the truth of at least some of the infinity of other elementary propositions. When one asserts that the objects '*a*' and '*b*' stand in a relation of three centimeters, one is equally saying that they do not stand in a relation of four centimeters, twenty kilometers or any other spatial distance. Another way of looking at this is that the structure of an elementary proposition presenting as its sense the objects '*a*' and '*b*' standing in a relation of three centimeters, stands in internal relation to the structures of the elementary propositions presenting as their senses the objects '*a*' and '*b*' standing in all other spatial relations. It is in virtue of the fact that the structures of these elementary propositions stand in internal relation to one another that the truth of one can exclude the truth of all others. In this way, elementary propositions representing specific relations cannot be independent of one another, the truth-value of one does affect the truth-values of others.

Nonetheless, it must still be the case that one can have a complete picture of the world, given the totality of true elementary propositions. It will be argued that while it is the case that the totality of all true elementary propositions at any given point in time provides a complete picture of the world at that point in time, it is not possible on this reading to form a truth-table of all the possible combinations of logically connected elementary propositions. Such a truth-table would display all possible worlds. The ability to form such a truth-table rests upon a totality of elementary propositions, which might be either true or false at any point in time, being given. As it was claimed earlier, this reading of the *Tractatus* requires an infinity of elementary propositions, and therefore, does not allow for the provision of a totality of elementary propositions. In order to be able to form a complete picture of the world, given an infinity of elementary propositions, one must know which elementary propositions are true, and from this one can determine that the rest of the infinity of other elementary propositions must be false.

If there is an infinity of elementary propositions for the reasons described above, then at best one can be given a totality of classes of elementary propositions. The infinity of elementary propositions is due to there being an infinite number of specific instances of a limited number of types of relations which might pertain between specific sets of objects. If each type of relation is presented by a variable for which there is an infinite number of relations that might replace that variable, then there can be a totality of classes of elementary propositions. Given such a totality of classes of elementary propositions, one might be able to form a complete picture of several different possible worlds by choosing as true one instance of each class of elementary proposition, automatically excluding all other instances of that class from being true. However, in that there is an infinity of different instances to choose from for each class of elementary proposition, one would never, in this way, be able to form a picture of *all* possible worlds. The result of this is that it would not be possible to display logical necessity as that which is true in all possible worlds, in the way that Wittgenstein had hoped.

While this reading of the *Tractatus* does not allow that it can be shown what is true in all possible worlds, it does allow that a complete description of the world at any given point in time can reveal what is true for that world. In this respect, the assessment of Wittgenstein's work has been fruitful. It has uncovered that elementary propositions are incapable of independence because they often represent a set of objects standing in a relation, which, when the elementary proposition is true, excludes the possibility of truth for elementary propositions representing the

same objects in an incompatible relation. The truly revealing notion, however, is that these relations are incompatible because each corresponds to a different gradation on some scale.

This reading of the *Tractatus* has exposed the fact that logical space can be described in terms of degree, a mode of description that Wittgenstein did not make use of in the work. However, it is indicated that Wittgenstein felt there to be different modes of description, a thought which is manifested in the proposition 6.342

6.342   And now we can see the relative position of logic and mechanics. (The net might also consist of more than one kind of mesh: e.g. we could use both triangles and hexagons.) The possibility of describing a picture like the one mentioned above with a net of a given form tells us *nothing* about the picture. (For that is true of all such pictures.) But what *does* characterize the picture is that it can be described *completely* by a particular net with a *particular* size of mesh. Similarly the possibility of describing the world by means of Newtonian mechanics tells us nothing about the world: but what does tell us something about it is the precise *way* in which it is possible to describe it by these means. We are also told something about the world by the fact that it can be described more simply with one system of mechanics than with another.

This statement suggests that the world, like a picture, can be described completely in terms of some specific descriptive mesh. Further, it is made known that the way in which the world is described, in other words, by means of which particular mode of description the world is described, indicates nothing about the world itself. However, the final sentence of 6.342 draws attention to the fact that certain means of description are more effective than others. It is exactly this conclusion which I feel that this thesis can come to. The world can be described more precisely, and effectively for the purposes of the *Tractatus,* in terms of degree.

Summary

Part three of this thesis has shown that the implications of the requirement for the representation of specific relations in a propositional sign are extensive for the *Tractatus*. Most notably, chapter six made the case that the work does not present an account to explain how elementary propositions, the bases of all propositions of language, can possibly represent specific relations.

It was argued that all propositions are analyzable to elementary propositions, which are nothing more than combinations of names. Further, it was argued that neither an account of relations as being represented by spatial relations between names, nor an account of relations as objects signified by names is sufficient to explain how specific relations can be represented in elementary propositions. In this respect, it must be concluded that while the *Tractatus* places certain demands on itself such that its propositions can remain informative though they are, by their own standards, nonsensical, it is unable to adequately meet those demands.

The contention of chapter seven was that elementary propositions cannot, in meeting the demands of the *Tractatus*, be independent of one another, thereby preventing the possibility that logical necessity can be displayed. It was put forth that the infinity of specific relations which pertain between objects in states of affairs, and which must be representable in elementary propositions can exclude one another, thereby precluding elementary propositions from being independent. It was then argued that in there being an infinity of distinguishable relations to be represented, there is an infinity of non-independent elementary propositions which can describe the world. This in turn rules out the prospect of being able to represent all possible worlds in a truth-table. The consequence of this, it was shown, is that, in the way that Wittgenstein would have liked, given his notion of independent elementary propositions, logical necessity cannot be displayed. It was finally argued that, while the reading of the *Tractatus* given in this thesis does not allow for logical necessity to be displayed, it does reveal that it is both possible and useful to describe the world in terms of degree; a mode of description not used by Wittgenstein. Indeed, this reading of the *Tractatus* indicates that the work demands that the world be described in terms of degree, so that it is possible to account for specific and distinguishable relations.

knowledge that the work is not able to support the claims that it's author would like it to. Second, to show that certain subjects in the work are still open to fruitful investigations. Given the magnitude of the *Tractatus*, this is a small task to have accomplished.

References

Anscombe, G. E. M.. (1959). 'Mr Copi on Objects, Properties, and Relations in the 'Tractatus.''
    Mind Vol. 68, No. 271. Page 404.

Carruthers, Peter. (1989). *Tractarian Semantics.* Oxford: Basil Blackwell.

Carruthers, Peter. (1990). *The Metaphysics of the Tractatus.* Cambridge: Cambridge University
    Press.

Copi, Irving. (1958). 'Objects, Properties and Relations in the 'Tractatus.'' *Mind* Vol. 67, No.
    266. Pages 145-165.

Fogelin, Robert. (1976). *Wittgenstein.* London: Routeledge and Kegan Paul.

Geach, Peter and Max Black (ed). (1980). *Translations from the Philosophical Writings of
    Gottlob Frege.* Oxford: Basil Blackwell.

Griffin, James. (1964). *Wittgenstein's Logical Atomism.* London: Oxford University Press.

Hylton, Peter. (1990). *Russell, Idealism, and the Emergence of Analytic Philosophy.* Oxford:
    Clarendon Press.

McGinn, Marie. (1999). 'Between Metaphysics and Nonsense: Elucidation in Wittgenstein's
    Tractatus.' *The Philosophical Quarterly* Vol. 49, No. 197.

Russell, Bertrand. (1917). 'Knowledge by Acquaintance and Knowledge by Description.' In
    Mysticism and Logic. London: George Allen & Unwin.

Sellars, Wilfrid. (1962). 'Naming and Saying.' *Philosophy of Science* Vol. 29, No. 1.
    Pages 7-26.

Wahl, Russell. (1986). 'Bertrand Russell's Theory of Judgment.' *Synthese* 68. pages 383-407

Wittgenstein, Ludwig. (1961). *Tractatus Logico-Philosophicus*. London: Routledge and Kegan Paul.

Zheng, Yiwei. (1999). 'Configurations and Properties of Objects in Wittgenstein's *Tractatus.*' *Philosophical Investigations* Vol. 22, No. 2.

Wittgenstein, Ludwig. (1961). *Tractatus Logico-Philosophicus*. London: Routledge and Kegan Paul.

Zheng, Yiwei. (1999). 'Configurations and Properties of Objects in Wittgenstein's *Tractatus.*' *Philosophical Investigations* Vol. 22, No. 2.